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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
~~Yellowstone~~ NATIONAL PARK

FILE NO.

J U N E

Monthly Report 1921.

MONTHLY REPORT

1921.

June

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DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

ICE OF THE SUPERINTENDENT

July 9, 1921.

Dear Sir:

The following is my report on conditions in the Yellowstone National Park, and on the operation of the Park, for the month of June, 1921:

GENERAL CONDITIONS:

At the beginning of June the roads were open for cars from Headquarters to Norris, West entrance, and Upper Basin, and teams had been through to Canyon and Lake, but due to the heavy storm of May 27-28, travel was being restricted to what was absolutely necessary in order to save the roads from being badly rutted. Conditions were improving rapidly, however, so that by the afternoon of the 1st light loads were permitted on the roads, and conditions were normal a day or two later.

Following a trip by motor from Cody to the east entrance on May 31st, with exceedingly muddy and badly rutted roads, I came into the park on June 1st at the eastern entrance, walked for about seven miles over the deep drifts through Sylvan Pass, and was met at the west end of the Pass by Engineer Burney, and together we made a careful inspection of the roads with a view to formulating plans for having them all open and in the best possible condition on or before the date set for the opening of the tourist season.

From that date on, the weather was warm and favorable, and with two small crews clearing the passes of snow, the work was accomplished without unusual difficulty. Foreman White's crew finished opening Sylvan Pass on June 9th, and by the 16th the road had been drained and repaired to the extent that tourist cars were permitted to use it. First Assistant Chief Park Ranger Harry Trischman, with a small picked crew,

completed the opening of the Dunraven Pass from snow on June 13th, and I motored through it on an inspection trip. It was opened to general travel on June 21st, by the time the first regular tourists had reached that point. The road leading up the south side of Mount Washburn from Canyon Hotel was opened for travel on June 20th, but it was June 24th before the north side was open so that it was safe. Several private cars went over before the drifts were shoveled, by going around them, and while there were no accidents, they experienced considerable difficulty and were stuck in the mud and had to be pulled out in several instances.

No shoveling was necessary to open the belt line road over the Continental Divide between Upper Basin and Thumb. Three tourist cars, the first to pass over this road, went over on June 5th, their only difficulty being in getting around a washout, which was repaired soon afterwards.

No attempt was made to open the South entrance road, but it was open without any shoveling by the time that there was any necessity for using it.

In general, the whole road system was open and minor necessary repairs had been made, and the sprinkling system put in operation, by the opening of the season on June 19th. Travel conditions in the park were probably never better at the opening of a tourist season.

Approach Roads: Regardless of the fact that there were obstacles of a more or less serious character at some point on nearly all of the roads approaching the park from the different directions, due to high water caused by melting snows in the mountains, travel by private automobile was heavy, beginning several days before the actual official opening of the park, and this still continues as shown by the following tables. Many of those who came in and were not committed to any particular schedule by circumstances were anxious to leave by some other route because they had found trouble somewhere on the road which they were anxious to avoid. Our excellent, well kept roads were a source of many compliments from thousands of tourists who had found grief of one sort or another on the approach roads within one or two hundred miles of the park.

Weather.

The Monthly Meteorological Summary furnished by the United States Weather Bureau for June is enclosed herewith. The following weather records are also quoted from reports from the same source, furnished by the local Observer:

Temperature: Monthly mean, 57.8° is 1.8° above normal. A higher monthly mean temperature for June has been recorded but four times in the past thirty five years. No unusually high temperatures occurred, but there were two periods, 4-14th and 22-30th, with temperature considerably above normal. Heavy frost occurred on the 2nd, with a temperature of 33°, the minimum for the month. Prior to this year, there were but six Junes since 1887, of which the minimum temperature did not reach the freezing point.

Precipitation: Total, 1.13 inches, is 0.51 inch below normal. Thunderstorms occurred on nine days. Heavy hail fell at the station from 9:00 p.m. to 9:04 p.m. of the 15th. Some of the hailstones measured one inch in diameter, but no material damage resulted, as the hailstones sparsely covered the ground and the storm was accompanied by light wind, 10 miles per hour being the highest velocity during the storm.

Snowfall: None.

Wind: The wind movement was unusually light. Maximum velocity was 32 miles from the southwest on the 11th.

Sunshine: Percentage of possible, 65, is nearly normal.

Travel.

The usual daily passenger train service to the park at the north, west, and east, from Cardiner, West Yellowstone, and Cody, was resumed at the opening of the season under the same time schedules as last year. The summer schedule went into operation at the western entrance on June 19th, so as to accommodate a special party of about 270 Shriners who came from their annual convention at Des Moines, Iowa, and another special party of about 45 members of the General Federation of Women's Clubs, who came in from their convention at Salt Lake City. The Park was officially opened from the western entrance on the morning of June 19th by the Honorable Stephen E. Hather, Director of National Parks, who came up from Salt Lake City in company with several railroad officials for this purpose.

The Chief Ranger's Travel Report for June, with

copy of similar report for June, 1920, for comparison, is enclosed.

The following table of travel for June, 1920, and 1921, gives some most interesting comparisons. The grand total of all classes of tourists for 1921 to include June 30th was 9,676, same for 1920 was 7,187, an increase in favor of 1921 of nearly 35%, but this increase was entirely made up of private motorists, the rail travel falling slightly behind that for 1920. It is also noted that this increase is fairly evenly divided between the various entrances.

JUNE TOURIST TRAVEL.

<u>Entrance</u>	<u>1921.</u>				<u>1920.</u>				<u>1921 Increase</u>
	<u>Cars</u>	<u>Pass</u>	<u>Other</u>	<u>Total</u>	<u>Cars</u>	<u>Pass</u>	<u>Other</u>	<u>Total</u>	
<u>NORTH</u>	973	3147	161	3308	432	1448	91	1539	1769
<u>WEST</u>	515	1695	80	1775	327	1063	34	1117	658
<u>EAST</u>	433	1429	31	1460	256	868	14	882	578
<u>SOUTH</u>	25	78	4	82	6	17		17	65
<u>TOTAL</u>	1946	6349	276	6625	1023	3416	139	3555	3070

<u>Entrance</u>	<u>1921.</u>			<u>1920.</u>			<u>Difference</u>
	<u>Hotel</u>	<u>Camps</u>	<u>Total</u>	<u>Hotel</u>	<u>Camps</u>	<u>Total</u>	
<u>NORTH</u>	408	414	822	675	669	1344	-522
<u>WEST</u>	1293	525	1808	1128	905	2033	-225
<u>EAST</u>	185	236	421	85	170	255	166
<u>TOTAL</u>	1876	1175	3051	1888	1744	3632	-581

<u>GRAND TOTAL</u>	<u>GRAND TOTAL</u>
1921 - TOURISTS	1920 - TOURISTS
9676	7187

Labor and Supply Market.

Common labor is quite plentiful and we are turning men away every day who are looking for work. It is not uncommon to have applications from those who are without funds and who ask for the privilege of working for their board until they can get on their feet. Mechanics are not so plentiful, yet we have been able to get excellent, well trained men to supply our needs in this line. Supplies

are much lower than they were last fall, but probably have about reached the bottom in the downward scale. Fresh meats are about 25 to 30 per cent lower than last year, and other staples are proportionately lower. Our last bid on gasoline was 15¢ per gallon, f.o.b. Graybull, Wyo., which is about half what it was a year ago.

II. PERSONNEL:

Employees.

On June 1st, there were 121 employees on duty under this office, which had been increased on June 30th to 238.

The following list shows the number of employees of various classes serving under appointment during the month, with a statement in general of the kind of work in which they were engaged:

<u>No.</u>	<u>Class</u>	<u>Kind of work performed.</u>
2	Ast. Engineers	In charge of engineering work in the park. (1 National Park Service, At Large).
7	Clerks	1 Disbursing Agent and Purchasing Clerk; 1 on cost account work and property; 1 on orders, proposals, and vouchers; 1 on time keeping; 2 stenographer-typists on stenographic work; 1 stenographer-typist on stenographic work and files.
2	Electricians	Read meters, did necessary line work, and operated power plant regular shifts, including Sundays.
4	Foremen	1 in charge of stables at headquarters, and repairing tents and harness; 1 repairing sprinkler wagons; 2 on road maintenance.
1	Telegraph operator	Sent and received all Government Western Union messages; operated one shift on telephone switchboard.
2	Telephone Switch-board Operators	Operated telephone switchboard, daily shifts, including Sundays. (1 on intermittent service only).
1	Master Mechanic	In charge of shops, and of repairs to heavy road machinery.
1	Blacksmith	General blacksmith work, including shoeing horses in shop, overhauling and repairing tools and equipment.

<u>No.</u>	<u>Class</u>	<u>Kind of work performed.</u>
1	Painter	Renovated quarters at headquarters; work on new museum; also painted signs and equipment.
1	Lineman	In charge of telephone and telegraph system. Did emergency work and installed instruments.
2	Laborers	Teaming, freighting, work in warehouse, and miscellaneous work at headquarters.
1	Handyman	Worked in storehouse issuing and receiving supplies.
1	Steward and Master of Transportation.	In charge of all transportation and of storehouses.
1	Buffalo Keeper	In charge of tame buffalo herd.
2	Asst. Buffalo Keepers	1 assisting Buffalo Keeper; 1 in charge of hay raising operations at Slough Creek.
1	Park Naturalist	Scientific research work and developing museum.
1	Plumber	In charge of general plumbing, and repairs to same at headquarters.
2	Automobile Mechanics	Repairing motor trucks and touring cars.
1	Watchman	Made hourly patrols during night at headquarters, took care of office, and in charge of watering of lawns at night.
2	Carpenters	1 repairing bridges and maintenance work; 1 repaired buildings at Headquarters, worked on new Museum and Information Office.
1	Chief Ranger	In charge of ranger force.
1	1st Asst. Chief Ranger	In charge of northern district, & trail crews.
1	Asst. Chief Ranger	In charge of southern district.
24	Park Rangers	1 on special duty as Acting Assistant Chief and in charge of ranger station motorcycle patrols, in charge of

No. Class.Kind of work performed.

39 Temporary Park Rangers

ranger stations, directing traffic, etc.

On duty in Chief Ranger's Office; making patrols; directing traffic; and Information Service.

1 Fireman

In charge of furnaces at headquarters.

In addition to the regular employees listed above under appointment, the following were employed temporarily by the day:

	<u>One June 1st</u>	<u>On June 30th</u>
Foremen	1	3
Laborers	18	67
Skilled Laborers	17	34
Linemen	1	0
1-Horse Teamster	0	1
2 " "	10	22
4 " "	1	23
Mechanics	5	14
Cooks	<u>5</u>	<u>19</u>
	58	193
Appointments	<u>63</u>	<u>105</u>
	121	298

Leaves of Absence.

During June, annual leaves of absence were granted as follows:

Hollie Roach,	Telephone Operator,	3 days-June 1-4
Wm. J. O'Loughlin,	Watchman,	3 " June 1-4
Albert M. Dickmell,	Park Ranger,	34½ " June 2-16 (noon)
Wm. L. Bicket,	Carpenter,	3 " June 2-4
H.E. Schiel,	Telegraph Operator,	4 " June 4-8
Clifford Anderson,	Park Ranger,	5 " June 5-8
Calvin O. Davis,	do	1 " June 4 (noon)-6 (noon)
Helen E. McHitt,	Steno.-Typist,	½ " June 8 (noon)
James Russell,	Park Ranger,	6 " June 9-16
George McFarland,	Laborer,	4 " June 14-17
Wm. J. O'Loughlin,	Watchman,	½ " June 15 (noon)
Wm. J. O'Loughlin,	"	½ " June 16 (noon)
Charlie R. Stinnett,	Blacksmith,	1 " June 7 (noon)-8 (noon)
George McFarland,	Laborer,	5 " June 25-30
Lee Webb,	Carpenter,	1 " June 16
C.A. Brant,	Handyman,	1 " June 25
Charlie R. Stinnett,	Blacksmith,	1 " June 29
Bert L. Stinnett,	Master Mechanic,	10 " June 13-22 (Sick leave applied for).
Francis E. Bredon,	Asst. Electrician,	15 " June 12-26 (Leave without pay applied for).
Hollis M. Matthew,	Park Ranger,	6 " June 22-28
Hollis M. Matthew,	"	2 " June 29-30 (Sick leave to be applied for)

Appointments.

June 10:	Dorothy A. Bowling,	Clerk,	\$110 per month.
June 15:	Mathilda Hyrmas,	Telephone Switchboard Operator,	35¢ per hr. (WAE)
June 22:	William I. Davis,	Asst. Engineer, National Park Service, At Large,	\$175.00 per mo. T., and subsistence in field.
June 13:	Mary A. Rolfe,	Park Ranger, Temporary,	\$100 per month.
June 8:	Sam Hurless,	Park Ranger, Temporary,	100 per mo.
June 15:	Emmet S. Matthew,	Park Ranger, W.A.E., *	1200 per annum.
June 15:	Hollis M. Matthew,	Park Ranger, W.A.E., *	1200 per annum.
June 15:	Elmo M. Head,	Park Ranger, W.A.E., *	1200 per annum.
June 15:	Wm. C. Troutman,	Park Ranger, Temporary,	100 per month.
June 12:	Russell Sprinkel,	Park Ranger, Temporary,	100 per month.
June 15:	Leon D. Mink,	Park Ranger, Temporary,	100 per month.
June 15:	Wendell S. Keate,	" "	100 " "
June 15:	Frank J. Parsch,	" "	100 " "
June 15:	Eugene Robertson,	" "	100 " "
June 15:	Ray D. Teesdale,	" "	100 " "
June 15:	Frank H. Knight,	" "	100 " "
June 15:	Vernon S. Downs,	" "	100 " "
June 15:	Forest L. Carter,	" "	80 " "

*Returned to duty.

III. WORK COMPLETED:

(a) Construction of Physical Improvements.

There was no construction under progress during the month.

(b) Maintenance and Repair of Physical Improvements.

Nine men, in charge of 1st Assistant Chief Ranger Harry Trischman, opened the road from snow through Dunraven Pass between June 8th to 15th, and on the following day began the work of opening the Mount Washburn road, which was completed by June 24th.

Park Ranger Henry Anderson, with a crew of three men, made a trip around the park between June 8th and 29th and cleaned up all the public automobile camps, removing garbage, repairing toilets, and hauling in fallen and dead timber for fire wood.

Rangers Larson and Lawson repaired the fence around the small field located on Lupine Creek, which is used during the summer for grazing horses not in use.

Work at the Buffalo Ranch included irrigation of hay fields, repairing fences, and minor improvements to buildings. 300 yards of fence, which was washed out by high water, was replaced.

(c) Miscellaneous Improvement Work.

The trail on the south side of Grand Canyon leading to Artist Point was extended for about two miles farther down the river, this work being done by the rangers at Canyon Station, with some assistance from the Yellowstone Park Camps Company.

(d) Service to the Public.

Due to the unusually heavy tourist travel, as shown by the enclosed reports, this feature required considerable attention. Private tourists came in considerable numbers before the opening of the season, on June 19th, and beginning June 6th the usual charge of \$7.50 was made at park entrances for automobiles entering the park.

All park stations were garrisoned for the summer before June 19th.

The new Information Office, at headquarters, was opened on June 28th, and since that time has been kept open daily from 7:30 A.M. to 10:30 P.M., although it is seldom

that any visitors have come in after 9:30. Previous to this time information was dispensed as usual from the Superintendent's Office. A total of 897 visitors were received during the month; a total of 2,147 circulars of information were distributed, of which 1,145 were distributed from the Information Office, 175 sent out by mail, and 827 given out at ranger stations in the park. In addition to these, there were sold in the Information Office 227 pamphlets, 29 contour maps, and 5 Haynes Guide Books.

Guides were furnished by the ranger force for trips over the formations at Mammoth and at Upper Basin, beginning June 19th. At Mammoth, two trips per day were made from the Camps and three from the Hotel. Between these dates a total of 50 trips were made by these guides and approximately 844 tourists took advantage of this service. At the Upper Geyser Basin two guides made a total of 43 trips from June 19th to 30th. The furnishing of guides from the ranger force is a new idea, this service having been furnished heretofore by the hotels and camps.

Park Ranger Mary A. Rolfe delivered twenty lectures, from June 20th to 30th, on the geological features of the park, 10 of these being given on the Mammoth Hotel porch, 3 at the Mammoth Camp, and 2 at the public automobile camp.

In addition to this general service, in several cases special service was rendered to tourists by our ranger force, such as delivering telegrams in emergencies, finding or attempting to find lost articles, etc.

The entire time of one ranger was required to look after the tame buffalo herd and answering questions from visiting tourists relative to this herd.

IV. WORK IN PROGRESS:

(a) Construction of Physical Improvements.

No construction work in progress during the month.

(b) Maintenance and Repair of Physical Improvements.

The work of graveling the road across Swan Lake Flats was continued through the month and completed as far as the Willow Park Camp by the end of the month. The gravel was spread to a depth of about four inches and thoroughly rolled with a steam roller. As no more

reduction
July 10

New relief map
of the park, which
was donated by
Mr + Mrs. Alvah
Davidson. We
need

June

funds are available for this work, the crew will be transferred to road work in other parts of the Park.

White's Crew: The crew in charge of Foreman White remained on road repair work during the month, working over the road in the East Forest Reserve and the East Entrance road over Sylvan Pass down to the Lake. Three days were required to shovel snow in Sylvan Pass, which was opened June 11th.

On June 17th and 18th the sprinkling and small maintenance crews were sent out to their respective stations for the summer. Seventeen horse sprinklers and two auto truck sprinklers will be used this season, to operate from eleven different stations on the loop, as follows: Mammoth, Beaver Lake, Gibben Meadows, Madison Junction, Excelsior Geyser, Upper Basin, Spring Creek, West Thumb, Lake, Trout Creek, and Canyon. A small maintenance crew will be located at each of these places to maintain the roads in that vicinity. A copy of circular issued at the beginning of the season showing location of these crews and giving them general instructions as to their duties is enclosed.

A small maintenance crew has also been placed at Blacktail Deer Creek and another at Tower Falls.

General repairs were made to the roads in all sections of the Park, and the whole system placed in the best possible condition for the opening of the season.

The painters began the work of repainting the Tower Falls Ranger Station, and this was nearly completed at the end of the month.

The plumber completed the water supply for Old Faithful Automobile Camp and turned on the water at this camp, also at Canyon and Mammoth Automobile Camps, and did the usual maintenance work on plumbing, lawn hydrants, and the water system at headquarters.

(c) Miscellaneous Improvement Work.

Employees at headquarter's corral maintained the usual work of looking after the stables, sanitation work, hauling garbage, and general work.

In addition to the work at Tower Falls mentioned heretofore, the painters did considerable work at headquarters renovating employees' quarters; painted two sprinkler wagons, two sprinkler tanks, and made a number

of signs for posting in the park. The Master Painter made one trip into the park, putting up signs and repairing those that had become damaged during the winter. His most important job at headquarters, however, was the renovating of the large room which has recently been prepared for use as an Information Office. The walls were entirely refinished, the wood work stained and varnished, and it was completed and ready for occupancy on June 24th. Similar work in adjacent rooms, which are later to be used as a Museum, is still in progress.

Carpenter Shop: The two carpenters spent a total of 26½ working days remodeling the old Bachelor Officers' Quarters into a Museum and Information Office, and a total of 17 days making toilets to be sent out into the park for public automobile camps. The balance of the month was spent in putting ventilators on the ice house; making repairs at the bunk house, and doing wood work on trucks, wagons, and passenger automobiles. 2

Blacksmith Shop: The blacksmiths worked on trucks, wagons, and passenger automobiles; shod horses for rangers, road crews, and sprinkler crews, also for the Park Naturalist. They also repaired and dressed tools for the plumber, painter, garage, and storehouse, besides repairing road drags and graders. One man spent part of his time in the park shoeing horses at road camps. ✓

Garage: The mechanics in the garage spent the month repairing and overhauling the various passenger cars and trucks, issuing gasoline and oil. They also repaired and put in operation the two sprinkler trucks. There has been one man in the motorcycle shop since June 10th, who has devoted all of his time on the motorcycles used by the ranger force. ✓

The electricians and linemen went over the lines throughout the park and made temporary repairs pending more permanent work which is to be done later. ✓

The new lighting system for the grounds at park headquarters was completed and put in use on June 19th. This system consists of 117 - 100 C.P. Lamps burning in series, using the Cutter System, with a 12 K.V.A. C.C. Voltage Regulator in power plant. Electric lights were also installed at the public automobile camps at Mammoth, using the old street lighting fixtures for this purpose. ✓

The power plant was run 20 hours daily up to and including the 19th. Beginning on the 20th, constant service has been maintained. There was generated during the month a

total of 13,590 kilowatt hours of current. Of this production, 4,102 kilowatt hours of current were sold to public utilities operating at Mammoth Hot Springs for lighting and power purposes, 156 kilowatt hours for lighting streets, and the balance of 9,332 kilowatt hours were used for lighting Government buildings and furnishing power to our shops. The peak load of 43 kilowatt hours occurred at 10:00 P.M., June 22nd.

The 45 acre field at the northern entrance was irrigated once during June. It is planned to cut this field for hay during the present month.

Park Naturalist Skinner assisted in the Information Office during the first half of the month and afterwards made trips into the park, collecting data for his reports on flowers, animals, birds, geological features, etc. He also assisted in instructing guides and others engaged in the Information Office, and similar service to the public.

The office force was busy throughout the month on routing work, including reports, correspondence, purchases, vouchers, and accounting, circulars of instruction for the tourist season, etc. A total of 1,515 official letters were received and 931 official letters were written and sent out during the month of June.

Improvements by Park Utilities.

About the only improvement work undertaken by the Yellowstone Park Camps Company during the month was a continuation of the work on the extension to the new dining room at the Canyon Camp and the installation of a new sewer system at the Upper Basin Camp.

The Hotel Company completed the work of remodeling the interior of the Cottage Hotel at Mammoth Hot Springs, and it was ready at the beginning of the season for occupancy as a dormitory by the male employees of this Company.

Mr. George Whittaker completed the installation of a gasoline tank at his Canyon store.

Mr. C.A. Hamilton continued the work on his new store at Lake Outlet. This was completed at the beginning of the season to the extent that he was able to use it. He also made fair progress with the addition to his store at the Upper Basin.

V. WORK BEGUN:

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+ a
Sanitation: Under plans of last year, Mr. H.B. Hommon, Associate Sanitary Engineer, United States Public Health Service, and Mr. A.P. Miller, Junior Assistant Sanitary Engineer, United States Public Health Service, arrived in the park on June 11th. Since their arrival, they have conducted investigations throughout the park relative to sewerage, garbage disposal, and mosquito control, but more especially on the quality of water supplied at various points in the park. A copy of Mr. Hommon's letter, dated June 28, 1921, with enclosures, outlining his proposed work for the season, is enclosed herewith.

VI. PLANS OR PROPOSED WORK:

ad rail
Concession Br.
S.P. Creek
caution
In addition to the work already in progress, plans have been made for July as follows:

The plumber will begin the installation of an adequate water system for supplying the public automobile camps at Lake Outlet. ✓

The painters will begin the work of repainting the outside of buildings at headquarters. This is an expensive job and probably cannot be completed in one season.

Plans are being made to begin the work on constructing a log fence from the rim of Opal Creek to the rim of Mount Morris for the purpose of holding the buffalo back from Lamar Valley during the summer so as to save the feed for winter use. This fence will be about 7 feet in height, made of logs not less than 6 inches in diameter, and about 1-1/8 miles in length. ✓

A new log ranger station is to be built to replace the old one on Grevice Mountain. The plans for this building call for a building 16 x 32, which will be divided into two rooms of about equal size, with an "L" for a kitchen. ✓

A log cabin and log barn will be constructed on Slough Creek about four miles above the present hay ranch at a site where it is proposed to put up additional hay for winter use of the elk. The house is to be about 16 x 30, and the barn about 40 feet long by 18 feet wide. Both floors and ceilings will be of boards, and the roofs will be of boards covered with rubberoid. Plans for these log buildings have been approved by Landscape Engineer D.R. Hull. ✓

The work for July contemplates putting up the usual supply of hay at the Buffalo Ranch on Lamar River and the two sites on Slough Creek, also cutting and stacking the hay on the 45 acre field at the northern entrance.

One trail crew will be put in the field in charge of Park Ranger Henry Anderson. The trail leading up Snake River from the present Snake River Ranger Station will be repaired as far as Fox Creek, connecting with the South Boundary Trail at that point. This crew will also repair the snowshoe cabins at Fox Creek and Cascade Creek.

VII. POLICIES:

There was no change in policies during the month.

VIII. COST OF OPERATION:

The cost of operation during June will be shown in detail on the Cost of Work Report, which has not yet been completed, but which will be transmitted at an early date.

IX. OTHER MATTERS OF INTEREST:

Wild Animals.

All wild animals were in excellent condition throughout the month.

Buffalo, tame herd: 19 of the best specimens of buffalo bulls from the tame herd were brought into Mammoth on June 19th for a show herd, and since that date many tourists have visited the corral daily to view them. On June 21st, a 2 year old bull was shipped to the Superintendent of City Parks, Sheridan, Wyoming, under authority dated December 21, 1920. An attempt was made on June 11th to ship a three year old bull to Sheridan, but, due to an accident which caused the overturning of the truck in which it was being transported, this bull had to be killed. A special report was made of this accident. The main herd grazed on Mount Norris during the month. 17 calves were born during the month, making a total of 63 to this date.

Buffalo, wild herd: No reports were received of the wild herd during the month of June.

Bears: Bears are numerous at the Canyon, Lake, and Upper Basin, where they furnish much interest to tourists. As high as nineteen have been seen at the Canyon garbage pile in one evening. The bigger bear, which was reported last year on the road between Thumb and Lake, has again made its appearance.

Antelope: The antelope are back in the mountains on the summer range and but little has been seen of them during the past month.

Deer: Deer are seen frequently at park headquarters and at many stations in the park. Many farms have been reported.

Elk: Indications are that there will be a goodly increase in the elk herds this season. Most of the herds are back in the mountains, but a few were seen in the vicinity of Mammoth as late as June 20th.

Mountain Sheep: Tourists traveling over Mount Washburn during the early part of the season enjoyed the sight of a herd of eight mountain sheep, three of them being ewes with lambs.

Grazing: Grazing is excellent in all parts of the park, and the abundance of rain during May and June has caused an excellent crop of forage for next winter.. The surplus horses of this Department are being held in a corral on Lava Creek, which is conveniently located to headquarters.

The Yellowstone Park Transportation Company brought in a herd of 44 horses, on June 12th. These are being used as saddle horses at Old Faithful and Grand Canyon, those at Old Faithful being grazed on Iron Creek, and those at Grand Canyon near Cascade Creek.

The Yellowstone Park Camps Company brought in 71 horses on June 7th and are using them as saddle horses and a few for necessary policing about the camps. These are distributed at Mammoth, Camp Roosevelt, and at Upper Geyser Basin.

Three small herds of cattle are being grazed in the park. These herds consist of milk cows necessary for furnishing fresh milk to the hotels and camps. One herd of 35, brought in on June 15th, grazed on the Gardiner River near the old Wyley permanent camp; another herd of 48, brought in on June 17th, are pastured in the vicinity of Queen's Laundry, on Sentinel Creek, at the Lower Geyser Basin. The third herd, numbering 67 head, were

brought in on June 17th, and are pastured near Cascade Creek and the Canyon.

Fishes.

The water was too high for good fishing until towards the latter part of the month, but more recently, since the water has receded, fishing has been fairly good in most of the park streams and has been enjoyed by many tourists.

The United States Bureau of Fisheries came into the park on June 9th and opened their hatchery on Yellowstone Lake for the purpose of gathering fish eggs for distribution. They also opened a branch hatchery on Fish Lake near Soda Butte Station.

Fish fry was received from the United States Fish Hatchery, at Bogeman, and from the Montana State Fish Hatchery, at Emigrant, Montana, and placed on June 30th as follows:

5,000 Eastern Brook Trout (Fingerlings) in Lava Creek.
5,000 " " " " in Glen Creek.
5,000 " " " " in Elk Creek, a
small tributary of the Yellowstone River in the
Tower Falls District.

5000
5000
72000

Further shipments of considerable size for planting in the park are expected.

The sub-hatcheries in the park are this year in charge of Mr. Charles B. Grater, who arrived on June 7th from the Leadville, Colorado, Hatchery, of which he is Superintendent. Operations were begun at the Soda Butte Hatchery on June 8th, and at the Yellowstone Lake Hatchery on June 9th.

Seasonal Changes.

The following notes on seasonal changes are quoted from reports of Mr. M. P. Skinner, Park Naturalist.

Botanical: The month has been notable for its fine growth of flowers and other vegetation. Vari-colored masses of bloom were common throughout the Park.

Below the 6000 feet level, the following began to bloom: False Forget-me-nots on the 2d; Iris on the 3rd; White Geraniums on the 12th; and Wild Roses on the 17th.

Near Mammoth: Wild Onions on the 3rd; Wild Flax and Solomon's Seal on the 11th; Waterleaf on the 12th; Bitterroot on the 15th; and Harbelle on the 27th.

On the Park plateau: dogtooth violets common on the 1st and were probably blooming the last week of May; Little Elephants on the 4th; Fringed Gentians on the 5th; Blue-eyed Grass on the 7th; Marsh Marigolds on the Continental Divide on the 8th; Coral Root (orchid) on the 12th; Camass on the 16th; Lupine and Columbine on the 17th; and the wonderful border of waterleaf was found on the Mt. Washburn roadside in full bloom on the 27th.

Birds: As usual, the Pine Siskins appeared with the first dandelion seeds on the 2d and were later joined by Cassin Purple Finches in their feasts on these noxious weed-seeds. Of the migratory birds; Cliff Swallows arrived on the 3rd, Western Tanager on the 15th, and Nighthawks on the 16th.

Near Mammoth, a Killdeer brood was hatched on the 1st and another nest at an even later date. Other notable features was the finding of the pair of Little Brown Cranes with young near the Great Fountain Geyser on the 7th; Bald Eagles were nesting for the third season near the Fishing Bridge on the 8th; Cliff Swallows were nesting under the Fishing Bridge and the Trout Creek bridge on the 9th; and Ospreys were brooding their eggs at the Canyon on the 9th.

Animals: Elk horns were one-third grown at the end of the month. Elk calves have appeared in rather more than usual numbers thruout the month.

Season is now normal.

Arrests and Violations of Law.

United States Commissioner Meldrum, who has been on leave of absence, returned to the park on June 8th, and one man was tried before him during June for violation of park regulations. Mr. C.B. Wright, of Iowa, was tried on June 27th charged with failing to extinguish his camp fire in the public automobile camp at Upper Geyser Basin. He was found guilty, fined \$10.00 and \$5.50 costs, which were paid. Mr. C. Bakke, of Los Angeles, California, was arrested on June 30th for snagging fish in Yellowstone River. His trial was set for July 1st.

In several other cases parties were detained for apparent violation of regulations, but upon investigation they were turned loose either from lack of evidence or from the fact that investigation showed that trial was not warranted. In one or two instances employees of park utilities who have overstepped park regulations have been discharged at the request of this office.

Forest Fires.

No forest fires were reported during the month. Up to about June 20th heavy rains occurred and there was but little danger from fires, but since that time fire patrols have been necessary, and as the season advances, constant vigilance is required to see that none are started by tourists leaving their camp fires burning.

Accidents and Casualties.

A serious accident occurred on June 11th when one of our 2-ton Mack trucks, loaded with a live buffalo bull in a crate, left the road near the Lamar River Buffalo Ranch and turned completely over. The truck was driven by Electrician Francis E. Bregdon, and his wife and three others were on the truck at the time. Mrs. Bregdon was seriously injured, as reported on June 16th. The others escaped with minor injuries. Mrs. Bregdon is recovering and is again able to be about.

Ranger Edward P. Buckenmyer was seriously injured on June 19th when his saddle horse reared and fell back with him, the horn of the saddle piercing his abdomen. This accident, which occurred while in the discharge of duty, was reported, on the regular blank forms, to the United States Employees' Compensation Commission, through your office. Mr. Buckenmyer is recovering rapidly, but is still unable to resume his duties.

Park Ranger Hollis M. Matthew, who was detailed

for motorcycle patrol work, was thrown from his machine on June 22nd and suffered a very painful sprain of the right knee. He has since been confined to his bed and under the doctor's care. This accident, which was incurred in line of duty, was reported on the regular forms to the Compensation Commission.

Mr. W.B. Learnard, of Arkansas City, Kansas, fell into the Fishing Cone, at the Thumb of Yellowstone Lake, on June 22nd, and was quite seriously burned. He was taken to Lake Camp for medical attention.

A laborer, employed at the Grand Canyon Automobile Camp to keep the camp clean and supply wood for campers, backed his horse and cart over the rim of a steep bank and rolled with them to the bottom, a distance of about 30 feet. Aside from a few cuts and bruises, he escaped without injury.

Word was received that Park Ranger Robert J. Potter, stationed at Bechler River, in the southwest corner of the park, had suffered a severe laceration of the right knee while mounting his horse when engaged in trail work in the Mountain Ash Creek district, and that it had been necessary to remove him to the hospital, at Ashton, Idaho, for care. Due to the distance from headquarters, the details of this accident have not been received and will be furnished later.

Sickness.

Dr. W.E. Crawback, who furnishes medical service to park employees under special arrangement, reports that he made 84 calls during the month of June. Notice was received, through your telegram of June 17th, that arrangements have been made by the United States Public Health Service to appoint Doctor Crawback an Acting Assistant Surgeon, United States Public Health Service, with station in the park, at a salary of \$100.00 per month. Under this arrangement, his duties as a public health officer would come under the jurisdiction of the officials of the Public Health officials, and he will be at liberty to continue his present arrangements to act as a general practitioner and physician for park employees.

*Appointment
of July 1*

At the beginning of the season, the Yellowstone Park Hotel Company employed Dr. B.C. Brooke, of Helena, Montana, to conduct their hospital and medical service in the park during the season.

One case of mumps occurred among our employees during the month. Master Mechanic Bert L. Stinnett was

3 in July

laid up for a few days with a severe case.

The three men on the Target Range near Gardiner, as reported in last month's report, are still in quarantine on account of small pox.

Oct July 11

Insulin

Births.

A daughter was born to Mrs. Stinnett, the wife of Blacksmith Charlie R. Stinnett, in a hospital at Livingston, Montana, on June 14th.

Natural Phenomena.

The following notes on natural phenomena in the park were furnished by Park Naturalist Skinner:

At Mammoth Hot Springs: Jupiter Terrace has improved a little over last month; Angel Terrace opened in a new place and now has four active openings; White Elephant, Bath Lake, Orange Spring, and Harrow Gauge Terrace remain the same as last month. Minerva Terrace has become active to a very limited extent. Mor and Cleopatra Terraces continue normal. Hyson Terrace improved slightly in color and activity.

At Norris Geyser Basin: Whirligig and Mud Geysers are more active than last year. Valentine Geyser has resumed activity after a two year rest; Constant and Monarch Geysers are inactive; Bath Tub is not active; New Crater and Minute Man Geysers are playing normally.

At Lower Geyser Basin: The Great Fountain Geyser is playing normally and the Fountain Geyser has been seen to play once at least. All other features are normal.

At Upper Geyser Basin: Old Faithful is playing more or less regularly at 63 minute interval; Daisy is stronger than ever and playing every 75 or 80 minutes; the Grotto, Giant, and Giantess Geysers are playing normally; Beehive Geyser has not been known to play; the Grand Geyser is giving fine eruptions two or three times a day; the Castle Geyser has resumed its normal activity; the Riverside and Lone Star Geysers are playing well on remarkably regular periods of seven hours and three hours respectively.

Copies on notes on Flowers, Geology, Animals, and Birds, for June, prepared by Park Naturalist Skinner and posted generally throughout the park for the information of travelers, are enclosed. These notes are prepared and posted in advance, but the June notes were not received in time to be included with the monthly report for May. Copies

of similar notes for July, which are now being posted, are also enclosed. These notes create great interest on these subjects and we have many calls for copies of them.

*and trip 3 days TT July 5 & 6 fishing
to Buff. Halliday, Heide, & my children
into at Mammoth & my children
9th to Cody by airplane*
Special Visitors.

Honorable E.C. Finney, First Assistant Secretary of the Interior, with his wife and two daughters, Misses Bernice and Edith, arrived in the park, via West Yellowstone, June 29th, and will leave the park via Cody, on July 9th.

Honorable Stephen T. Mather, Director, National Park Service, was in the park June 19th and 20th, arriving at West Yellowstone the morning of June 19th, leaving Gardiner the evening of the 20th. With Director Mather were Mr. H. V. Platt, General Manager of the Oregon Short Line Railroad; W.R. Armstrong, Chief Engineer; B.H. Prater, Engineer, Maintenance of Way; D.S. Spencer, General Passenger Agent, and Mr. Brooks, Division Superintendent, all of the Oregon Short Line Railroad--Union Pacific System, also Mr. W.S. Basinger, Passenger Traffic Manager of the Union Pacific System. All of the railroad officials returned to West Yellowstone the evening of June 19th.

Mr. H.M. Adams, Vice President of the Union Pacific System, arrived at West Yellowstone July 1st, leaving at the same gateway the evening of July 4th.

About 45 members of the General Federation of Women's Clubs arrived June 19th at the West Yellowstone and Gardiner entrances, leaving the park on June 24th. Among these members were Mrs. John Dickinson Sherman, Chairman of the Department of Education; Mrs. Frances C. Whitley, Chairman, Division of Conservation, of the Department of Education; Miss Florence Diebert, of Johnstown, Pa., President, Pennsylvania Federation of Women's Clubs; Mrs. E.F. White, Chairman, Legislative Department, General Federation of Women's Clubs.

The Minnesota Bankers Association, numbering 51 members, arrived June 27th and left via Cody July 1st.

Dr. K.F. Meyer, of the George Williams Hooper Foundation for Medical Research, University of California, was in the park June 20th to 24th conducting research work for that University. Dr. Meyer specializes on the investigation of soil for Botulism, and was permitted to collect 51 samples of soil from isolated places in the park for this purpose.

Mr. J.R. Eskin, Superintendent of Glacier National Park, visited this park officially June 16th to 18th.

Mr. H.W.L. Mieneyer, Secretary-Treasurer, of the Idaho State Automobile Association, and Mr. Willis Scott, of Hampa, Idaho, visited the park on June 16th.

Mr. Charles Coffey, reporter and publicity agent for the Union Pacific Railroad Company, visited the park on June 16th.

Mr. George Bird Grinnell, of New York, with his family, entered the park via Gardiner on June 30th and is still here.

Professor Alvin G. Whitney, of the New York State College of Forestry, Syracuse, New York, arrived on June 28th and took charge of the Yellowstone Park Forest and Trail Camp.

Mr. John B. Trevor, and family, of New York, arrived on June 23rd. Mr. Trevor, who is a noted philanthropist and who was in charge of the Intelligence Division, in New York City, during the late war, has engaged the services of a pack train and expects to travel in and around the park most of the season.

Mr. Lewis R. Freeman, a magazine writer, who is collecting material for an article on Yellowstone River drainage, arrived on June 26th. On June 30th, he embarked, from Livingston, Montana, in a 14 foot steel boat for a trip to St. Louis, Missouri, by water.

Mr. Carl Hohnsten, a noted lecturer, of Stockholm, Sweden, entered the park on June 24th.

Professor Keyi Uyehara, of the Department of Landscape Architecture and Forestry, College of Agriculture, Tokyo Imperial University, Japan, also Secretary of the Japanese Society of Landscape Architects, of Tokyo, arrived in the park, via West Yellowstone, on June 20th, leaving June 25th via Gardiner.

Dr. Max M. Ellis, representative of the United States National Museum, entered the park on June 13th. Dr. Ellis is looking into the crawfish problem, and while in the park will examine park streams.

Professor Richard Anthony Mattkowski, of the University of Idaho, visited the park during the month in

*Fred Coffey
P.R. River July 4
July 10
Securities
Pictorial
Jack H. Bright
Associated Press
reps July 4-8*

*C.E. Adams
29*

connection with his investigation of fish foods. His operations were confined to the Tower Falls region.

Motion Pictures.

No motion picture operators visited the park during the month. One permit was issued, on June 1st, to Mr. H.C. Reynolds, of 317 North Robinson Street, Oklahoma City, Oklahoma.

Miscellaneous.

Entertainments: Dances at the Post Exchange, under the direction of the Park Curio Shop, were resumed on June 23rd for the benefit of park employees. They will be given twice a week during the summer.

I gave my lecture on the Hawaii National Park, illustrated by colored slides, at the Post Exchange, on June 16th, for the benefit of park employees.

Church Services: Morning and evening services were held in the chapel by Reverend J.F. Pritchard, of Emigrant, Montana, on June 5th, 20th, and 26th. Catholic services were held as follows:
June 23rd, 6:00 A.M., by Rev. Father Snyder, of Cody, Wyoming.
June 23rd, 6:30 A.M., by Rev. Father Leary, of Chicago, Ill.
June 26th, 6:00 A.M., by Rev. Father Roche, of Cedar Rapids, Iowa.

Publicity: Several newspaper reporters were in the park at times during the month of June and much publicity was given the park through their efforts.

For the first time in the history of Yellowstone Park, a newspaper office was established, where a newspaper is edited and placed on sale at all news stands and from our Information Office. This work is in charge of Mr. Al Collins, of Spokane, Washington, assisted by a member of the staff of the Bozeman (Montana) Daily Chronicle, the printing being done in the Bozeman office. To date two numbers of the "Tourist Tattler" have been issued. Copies of these two numbers are enclosed herewith.

Circulars: Copies of Circulars Nos. 4 to 16 inclusive, were issued during the month and copies are enclosed herewith. Circular No. 5, which embodies instructions to rangers, is not yet completed.

X. RECEIPTS AND REMITTANCES:

There is enclosed a report, on the regular blank forms, of revenues due, collected, and transmitted, during the month of June. The total amount enclosed, \$80.91, as shown by this report, is described as follows:

Postal Money Order, No. 46459, dated June 6, 1921, drawn by the Postmaster at Yellowstone Park, Wyoming, on the Postmaster at Washington, D.C., to your order, \$2.54

Check No. 414, dated June 16, 1921, drawn to your order by the Yellowstone Park Hotel Company, on the National Bank of Montana, Helena, Montana,80

Check No. 1737, dated June 18, 1921, drawn to your order by the Yellowstone Park Transportation Company, on the National Bank of Helena, Montana, 77.57

Total, \$80.91

Acknowledgment of receipt of the enclosed money is requested.

Cordially yours,

Horace M. Albright,
Superintendent.

The Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Enclosures.

GM:GH

July 1, 1921.

REPORT ON WORK PERFORMED.

To: Chester A. Lindsley, Acting Superintendent.

From: M. P. Skinner, Park Naturalist.

Park Naturalist Skinner prepared a set of monthly notes on flowers, geology, animals, and birds: 48 sets were posted on bulletin boards, and 377 sets were given out from the Information Office. Plans were made for cases and flower mounts for the museum, and some collections were made. Scientific activities in the Park were supervised. Management of the Information Service was continued until the 20th, and then relinquished to the Ranger Service. After the 20th reports on Guide Service and Information Service were made to the Superintendent. Data on natural features were collected every day. Inspections of forests were made and results reported. Other studies pursued by him, resulted in his notes on Seasonal Changes and Natural Phenomena, as embodied in this report. Four days were devoted to special work assigned by the Superintendent.

June 28, 1921

Dear Sir:

During the latter part of the Park season last year I was detailed from the U. S. Public Health Service, by request of the Director of National Parks, to visit a number of the national parks for the purpose of making a survey of the sanitary conditions, and preparing a report stating what improvements should be made.

I visited Yellowstone National Park, as you no doubt remember, a few days before the close of the park season. The substance of my reports covering all the parks visited was that the problems of sanitation such as securing and maintaining pure water supplies; providing for sewerage systems and disposal plants; preparing plans for ultimate garbage collection and disposal; and the supervision over sanitation in general were not being handled as efficiently as they should be to properly safeguard the health and comfort of visitors and employees in the Park. The final recommendation was that an experienced sanitary engineer from the U. S. Public Health Service be assigned to the National Park Service for the purpose of supervising the sanitary improvements to be made in the parks, and that assistant sanitary engineers be detailed for permanent duty in those parks where their services were most needed. The plans outlined in my report for this park as well as all the other were accepted and I was detailed to carry out the work. Jr. Assistant Sanitary Engineer, A. P. Miller, was detailed to this park for permanent duty and he and I reported here on the 11th of June. Since that date we have examined all the important water supplies in the park and the entrances at West Yellowstone and Gardiner, and have made a general sanitary survey of the hotels and camps and their surroundings. Before proceeding further with our work, however, it has seemed advisable to submit a brief report giving in detail what we expect to accomplish, and especially to outline the cooperation that will be necessary between the officers of the Government and the officials of the companies owning the concessions in the park.

In addition to the report outlining the work to be done and the basis of cooperation expected, there is also submitted

herewith a detailed report giving the data collected on our first inspection trip. The data in the latter report will be the outline for the work Mr. Miller will do during the present park season.

Very truly yours,

H. B. Hommon,
Associate Sanitary Engineer,
U. S. Public Health Service.

Mr. Horace M. Albright,
Supt., Yellowstone Nat'l. Park,
Yellowstone Park, Wyo.

Inclosures.
HBH-M

OUTLINE OF WORK TO BE
DONE FOR IMPROVING
SANITATION IN
YELLOWSTONE NATIONAL PARK
DURING SEASON OF 1921

by

H. B. HOMMON
ASSOCIATE SANITARY ENGINEER
U. S. PUBLIC HEALTH SERVICE

The following outline has been prepared to indicate what work should be undertaken to improve sanitation in the Park, and to show what seems to be the most logical course to follow in carrying the work to completion.

(1) Disposal of Sewage. At all the principal junctions maps will be prepared showing location of all buildings, highways, water supply sources, pipe lines, reservoirs, etc., and a general layout of proposed sewerage systems and disposal plants.

(2) Privies (dry closets). The very unsatisfactory condition arising from the use of privy vaults must be improved. It is the intention to prepare standard designs for the privy buildings and vaults, and to provide general rules for their supervision and upkeep. It is believed that money will be saved by using a uniform standard design for privies with one or more seats, and it is absolutely certain that the present odor and fly nuisance can be reduced so that visitors will not have cause to complain as they do under the present conditions.

(3) The sanitary engineer detailed for permanent duty in the Park has fitted up a bacteriological laboratory in the old army hospital at Fort Yellowstone, and it is the intention to make frequent analysis of samples of water collected from the various supplies used in the Park.

(4) Garbage Disposal. The disposal of garbage is satisfactory

in most places in the Park, but it will be the duty of the sanitary engineer to observe garbage collections, and the various garbage dumps, and to make recommendations for improvement whenever conditions are found that are a menace to the health or comfort of the visitors. The principal objection to the present methods of disposal is the flies that breed in the garbage and this feature can be eliminated at a moderate cost.

(5) Mosquito Control. During a recent inspection trip to the various junctions the mosquito nuisance was almost intolerable. Visitors and employees complained in no uncertain terms and many of the visitors no doubt would have remained longer at the different points of interest had not the mosquitoes been so numerous and active. It is not believed that mosquitoes can be entirely removed but there is absolutely no doubt that they can be so reduced in numbers that visitors and employees will not be annoyed by them as they were during the recent inspection trip. It is our intention to outline the work that should be done to remove the mosquito nuisance, and to prepare an estimate of the cost of ditching or oiling at those places where there is a nuisance. It is not anticipated that the cost will be prohibitive since explosives have been successfully used for ditching and there is TNT available in the Park.

(6) Inspection Service. It is believed that it will be to the interest of all concerned if an inspection service be inaugurated. The

plan that has seemed most serviceable and practical is for the medical officer and sanitary engineer of the U. S. Public Health Service to make a general inspection of all places preparing and serving food and water to visitors, or employees in the Park, and to inspect the general sanitary conditions of all buildings and grounds to which visitors and employees have access. These inspections will be made at least once in every two weeks and more frequent when necessary. A written report signed by both officers will be submitted to the Superintendent of the Park, and it is suggested that concessionaires be supplied with copies of the reports pertaining to their premises.

(7) Diarrhea and Dysentery. From various sources it has been learned that diarrhea or dysentery have been more or less prevalent in the Park in previous seasons, and the causes of these disorders have never been determined. Some have attributed the cause to spoiled food, others have blamed water or milk, while some have claimed that the irregular habits of visitors on first entering the Park is the cause. It is believed that a complete record of the cases that come to the attention of the doctors and nurses in the Park will throw considerable light on the cause of diarrhea and dysentery. Blank report sheets will be prepared and distributed to the various doctors and nurses in the camps and hotels, and if each case is reported on these sheets it is believed that some valuable information will be collected.

The blank report sheets will be distributed by the Acting Assistant Surgeon of the U. S. Public Health Service, Dr. Crawbuck, and

he will call for reports during each inspection visit to the various places where nurses and doctors are in attendance. Where there are no nurses or doctors employed all cases of diarrhea or dysentery should be reported immediately to the Acting Assistant Surgeon so that he can obtain the history of each case.

Since I am cooperating with the Superintendents of all the National Parks in the same manner as here at Yellowstone, it is my intention to collect similar data from all the parks in regard to the cause of diarrhea and dysentery. When gathered together the data will be very useful in adopting measures for removing the causes of these disorders or diseases whichever they may be.

(8) Since the sanitary engineer detailed to this park has facilities for analyzing water and will be expected to familiarize himself with available water supply sources, and as he will be making a special study of sewerage systems, garbage disposal and mosquito control, and all other sanitary problems, it will be absolutely necessary that he be consulted, through the Superintendent of the Park, before any new work is started or changes made in present installations pertaining to the work outlined above. If he is not consulted complications are sure to arise since all plans for sanitary improvements are being considered with the view of future developments.

(9) It will not be the intention or purpose of the sanitary engineer or medical officers to promulgate or recommend arbitrary or oppressive rules or regulations, but there are certain fundamental principles of sanitation

that should be observed wherever people congregate together for any purpose, and it is to these that we will confine our attention.

The substance of the recommendations embodied in this report has been discussed and approved by the Director of the National Parks and the Superintendent of this Park, and it is believed that these recommendations can be carried out without friction or material inconvenience to all parties concerned.

June 1, 1921 June 30

men	1	3
ers	18	67
lled Laborers	17	34
men	1	—
se Transfers	—	1
" Transfers	10	22
" "	1	23
hanics	5	14
oks	5	19
	58	183
ppointments	63	105
	121	288

Report of Lectures for June 1921

Hotel	✓	10
Camp		8
Auto Camp		2
Total		20

Signed,

Mary A. Rolfe
Mary A. Rolfe.

By Mr Skinner at Mammoth Hotel

Circulars Distributed:	1920	220
At Supt Office & Inf Office	1921	975
By Mail		
From Ranger Stations		827
Total		

Pamphlets & 29 maps
5 Haynes Guides Sold
accounted for

Inf Office since June 19 9:30 AM to 1:30 PM ✓
& in New Office ^{since} June 28th

Total visitors 672 +
135
80
887 ✓

Guide Trips From Mammoth
in 20-30 mds.

a day from Hotel Mammoth total about 249
@ " " Mammoth Hotel " " 595
22 trips }
28 } 50 trips with 844

Upper Basin

Guide at U Basin made 23 trips for June 19-30
for the other 20 " " " 21-30
43 "

July 1, 1921.

Brief Outline of Work accomplished during the month of

June by the Painting Division.

up Mammoth Toilet. Screens, Lupt. all night Quarters.
ac. Stennetts Quarters, Bed Room, Catering. Museum, Caking room etc.
Sprinkler Tanks & Two Truck Sprinkler Tanks. Chapin, Cleaning.
signs: - Trail, Do not drink from this stream, Speed, Fishing
Prohibited, Montana - Wyoming, Dangerous Slip Off The Fence.
Water Line, Northern Entrance.
Painted Town Falls Ranger Station.

H. C. Neumann.

to planned for month of July.
Cleaning of signs in park, Touching up where necessary.
Fishing Pool at Town Falls Ranger Sta.
Gardiner River Bridge. Painting buildings on line.

Fill out briefly and return to Mr. Lindsley before the
5th of the following month. Data needed for monthly report.

June 30th, 1921.

Brief Outline of Work accomplished during the month of
June by the Plumbing Division.

✓ Maintenance to inside plumbing lawn hydrants and
water system. Completion of Old Faithful Auto Camp water supply

Fill out briefly and return to Mr. Lindsley before the
5th of the following month. Data needed for monthly report.

July 1, 1921.

REPORT ON NATURAL PHENOMENA.

To: Chester A. Lindsley, Acting Superintendent.

From: M. P. Skinner, Park Naturalist.

At Mammoth Hot Springs: Jupiter Terrace has improved a little over last month; Angel Terrace opened in a new place and now has four active openings; White Elephant, Bath Lake, Orange Spring, and Narrow Gauge Terrace remain the same as last month. Minerva Terrace has become active to a very limited extent. Mound and Cleopatra Terraces continue normal. Hymen Terrace improved slightly in color and activity.

At Norris Geyser Basin: Whirligig and Mud Geysers are more active than last year; Valentine Geyser has resumed activity after a two year rest; Constant and Monarch Geysers are inactive; Bath Tub is not active; New Crater and Minute-man Geysers are playing normally.

At Lower Geyser Basin: The Great Fountain Geyser is playing normally and the Fountain Geyser has been seen to play once at least. All other features are normal.

At Upper Geyser Basin: Old Faithful is playing more or less regularly at 63 minute interval; Daisy is stronger than ever and playing every 75 or 80 minutes; the Grotto, Giant, and Giantess Geysers are playing normally; Beehive Geyser has not been known to play; the Grand Geyser is giving fine eruptions two or three times a day; the Castle Geyser has resumed its normal activity; the Riverside and Lone Star Geysers are playing well on remarkably regular periods of seven hours and three hours respectively.

Botanical: The month has been notable for its fine growth of flowers and other vegetation. Vari-colored masses of bloom were common thruout the Park.

Below the 6000 feet level, the following began to bloom: False Forget-me-nots on the 2d; Iris on the 3rd; White Geraniums on the 12th; and Wild Roses on the 17th.

Near Mammoth: Wild Onions on the 3rd; Wild Flax and Solomon's Seal on the 11th; Waterleaf on the 12th; Bitterroot on the 15th; and Harebell on the 27th.

On the Park plateau: dogtooth violets common on the 1st and were probably blooming the last week of May; Little Elephants on the 4th; Fringed Gentians on the 5th; Blue-eyed Grass on the 7th; Marsh Marigolds on the Continental Divide on the 8th; Coral Root (orchid) on the 12th; Camass on the 16th; Lupine and Columbine on the 17th; and the wonderful border of waterleaf was found on the Mt. Washburn roadside in full bloom on the 27th.

Birds: As usual, the Pine Siskins appeared with the first dandelion seeds on the 2d and were later joined by Cassin Purple Finches in their feasts on these noxious weed-seeds. Of the migratory birds; Cliff Swallows arrived on the 3rd, Western Tanagers on the 15th, and Nighthawks on the 16th.

Near Mammoth, a Killdeer brood was hatched on the 1st and another nest at an even later date. Other notable features was the finding of the pair of Little Brown Cranes with young near the Great Fountain Geyser on the 7th; Bald Eagles were nesting for the third season near the Fishing Bridge on the 8th; Cliff Swallows were nesting under the Fishing Bridge and the Trout Creek bridge on the 9th; and Ospreys were brooding their eggs at the Canyon on the 9th.

Animals: Elk horns were one-third grown at the end of the month. Elk calves have appeared in rather more than usual numbers thruout the month.

Season is now normal.

July, 1, 1921.

REPORT ON SEASONAL CHANGES.

To: Chester A. Lindsley, Asst. Supt.

From: M.P. Skinner, Park Naturalist.

Botanical: The month has been notable for its fine growth of flowers and other vegetation. Vari-colored masses of bloom were common thruout the Park.

Below the 6000 feet level, the following began to bloom: False Forget-me-nots on the 2d; Iris on the 3rd; White Geraniums on the 12th; and Wild Roses on the 17th.

Near Mammoth: Wild Onions on the 3rd; Wild Flax and Solomon's Seal on the 11th; Waterleaf on the 12th; Bitterroot on the 15th; and Harebell on the 27th.

On the Park plateau: dogtooth violets common on the 1st and were probably blooming the last week of May; Little Elephants on the 4th; Fringed Gentians on the 5th; Blue-eyed Grass on the 7th; Marsh Marigolds on the Continental Divide on the 8th; Coral Root (orchid) on the 12th; Camass on the 16th; Lupine and Columbine on the 17th; and the wonderful border of waterleaf was found on the Mt. Washburn roadside in full bloom on the 27th.

Birds: As usual, the Pine Siskins appeared with the first dandelion seeds on the 2d and were later joined by Cassin Purple Finches in their feasts on these noxious weed-seeds. Of the migratory birds; Cliff Swallows arrived on the 3rd, Western Tanagers on the 15th, and Nighthawks on the 16th.

Near Mammoth, a Killdeer brood was hatched on the 1st and another nest at an even later date. Other notable features was the finding of the pair of Little Brown Cranes with young near the Great Fountain Geyser on the 7th; Bald Eagles were nesting for the third season near the Fishing Bridge on the 8th; Cliff Swallows were nesting under the Fishing Bridge and the Trout Creek bridge on the 9th; and Ospreys were brooding their eggs at the Canyon on the 9th.

Animals: Elk horns were one-third grown at the end of the month. Elk calves have appeared in rather more than usual numbers thruout the month.

Season is now normal.

JULY NOTES ON THE ANIMALS

show herd of 18 fine BUFFALO are on view at the Corrals near Mammoth. So far, 60 calves have made appearance in the tame herd this year. The wild herd, too, seems to be increasing. MOUNTAIN SHEEP are on the high mountains, but occasionally seen on Mt. Washburn. Young lambs are now one month old. MOUNTAIN GOATS are seen occasionally along the road from Tower Falls to Mammoth. The little kids are now two months old. ELK are working up the high mountains to get away from the flies. Bands are still being seen on the grassy slopes of Mt. Washburn. The horns are still covered with skin and two-thirds grown. The calves are one month older in color than the parents and spotted with round, white spots. DEER might be seen in ones and twos at almost any point throughout the trip. Horns are still covered with velvet and nearly grown. The fawns are two months old and spotted with white. BEAVER are shy but might be seen at almost any point in the evening, but not in daytime. On Glen Creek below the Buffalo Corral, in Willow Park, along the Gibbon and Firehole Rivers, near the Yellowstone River bridge at Tower Falls, and beside the road from T. J. 12 miles from that junction and 6 miles from Mammoth, are the most likely places. They are now leaving their houses and dams to lead a more or less wandering life until autumn. WOLVES are common enough and often seen, but wolves and mountain lions are too rare to accommodate the needs of the tourists. BLACK, BROWN and CINNAMON BEARS are all the same species, just as we have black, white and yellow bears. They are beginning to appear about the dumps near Old Faithful, Lake, Canyon and Mammoth, and in addition might be seen at almost any point along the roads and trails. The cubs are now about five months old, having been born a month or more before the parents left their places of hibernation. No matter how friendly they seem, all bears are subject to dangerous fits without warning. LEAVE 'EM ALONE! COYOTES are comparatively rare but might be seen about the dumps near Lake and Canyon after sunset and sometimes before sunrise. Not apt to be seen in daytime.

JULY NOTES ON THE BIRDS

The spring migration was finished early in June; all of the species that spent their winter in the South have returned and a good many have passed on. The first species to return, the Western Willet, is not due here until the middle of the month. Robins and bluebirds are more numerous than usual this year; all other species seem to be present in their usual numbers. July is the month of young birds. Young robins and bluebirds are leaving their nests at Mammoth, Old Faithful and Canyon; the speckled breasts are the distinguishing marks of the youngsters. Cliff swallows are nesting under eaves at Mammoth and Canyon, and the young will appear towards the end of the month. Gulls and pelicans are nesting on Molly Island and the young birds should appear this month. Flickers are nesting about Old Faithful. An osprey nest on Eagle Nest Rock in Gardiner Canyon has four (an unusually large number) young birds. There are four nests easily visible at Canyon, three from Inspiration Point and one from Grand View; another on a tree beside the East entrance road about five miles from Lake Junction. Each nest contains two or three young birds hatched during the latter part of June. The whole osprey family might serve as a model of domesticity. While the mother is busy protecting the young with her half-raised wings against the fierce rays of the sun, her mate is away fishing for the family. When he brings in her fish, as he does at quite regular intervals, he tears it up and gives it to her in small pieces. This month he has to redouble his activities and bring in trout for the whole family. At eating time, there is a notable lack of the squabble that takes place in the nests of other birds; the young ospreys arrange themselves in an orderly circle about their mother who gives each bird his fish, a little bit, as it is torn off. Singing birds are singing at the beginning of the month; but one by one, the different species will discontinue until by the end of the month, the fields and forests will be almost silent.

Approved:

HORACE M. ALBRIGHT,
SUPERINTENDENT.

M. P. SKINNER,
PARK NATURALIST.

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

CE OF THE SUPERINTENDENT

July 5, 1921.

MEMORANDUM FOR MR. LINDSLEY:

1 Honorable E.C. Finney, First Assistant Secretary of the Interior, with his wife and two daughters, Misses Bernice and Edith, arrived in the park, via West Yellowstone, June 29th, and will leave the park via Cody on July 9th.

3 Mr. H.M. Adams, Vice President of the Union Pacific System, arrived at West Yellowstone July 1st and leaves at the same gateway the evening of July 4th.

5 The Minnesota Bankers Association, numbering 51 members, arrived June 27th and left via Cody July 1st.

2 Honorable Stephen T. Mather, Director, National Park Service, was in the park June 19th and 20th, arriving at West Yellowstone the morning of June 19th, leaving Gardiner the evening of the 20th. With Director Mather were Mr. H.V. Platt, General Manager of the Oregon Short Line Railroad; W.R. Armstrong, Chief Engineer; B.H. Prater, Engineer, Maintenance of Way; D.S. Spencer, General Passenger Agent; and Mr. Brooks, Division Superintendent, all of the Oregon Short Line Railroad--Union Pacific System, also Mr. W.S. Basinger, Passenger Traffic Manager of the Union Pacific System. All of the railroad officials returned to West Yellowstone the evening of July 19th.

about 45 members of June

4 The General Federation of Women's Clubs (Will supply names later) ----- among whom were Mrs. John Dickinson Sherman, Chairman of the Department of Education; Mrs. Frances C. Whitley, Chairman, Division of Conservation, of the Department of Education; Miss Florence Diebert, of Johnstown, Pa., President, Pennsylvania Federation of Women's Clubs; Mrs. E. F. White, Chairman, Legislative Department, General Federation of Women's Clubs, etc., etc.

of Indianapolis

Hull

June 26

Lewis R.

Mr. Freeman, a prominent magazine writer, is at Mammoth Camp. He would like an interview as he is going to write something of Yellowstone River. Would prefer tonight as he leaves in the morning via Gardiner, but will come in tomorrow before he goes if better.

Writes for Sunset and wants real information about the irrigation projects, flood conditions etc. Expects to travel down the Yellowstone from Livingston by boat.

Did you get his initials!

I gave him a set of
Hearings in 1901
He is absolutely with you

a high class

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

CE OF THE SUPERINTENDENT

June 16, 1921.

Dear Sir:

On June 11th, one of our two-ton Mack Trucks left Headquarters at 5:00 P.M. for the buffalo farm. It was loaded with a crated live buffalo bull, which was being returned to the ranch to be exchanged for a suitable one to ship to Sheridan, Wyo., an error having been made in selecting a suitable bull which was not discovered until the bull had been hauled in to Gardiner.

On account of a shortage of regular drivers at the time, it was driven by Electrician Francis E. Bregdon, who volunteered to do so. Accompanying him were his wife, Mr. and Mrs. George McFarland, and Buffalo Keeper Lacombe met them a mile or two from the ranch as they approached it about 8:00 P.M.

At 8:40 P.M. notice was received by telephone that the truck had left the road when about 500 yards from the buffalo ranch buildings, and a serious accident had occurred. Doctor Crawbuck was summoned, and left at 9:35 with Ranger Bishop and took care of the injured members of the party.

All of the men of the party escaped without serious injury. Mrs. McFarland sustained lacerations of the scalp, but they were not serious and she was able to return to Headquarters the same evening.

Mrs. Bregdon was very seriously injured, and for a day or two her condition was precarious. Some of her ribs were fractured, apparently her lungs were injured, possibly by the broken ribs, and she also suffered from a number of serious abrasions on her left side and limbs. For two days her condition was considered quite serious, and the results doubtful, but she finally began to mend, and now appears to be well on her way to a complete recovery.

Careful inspection of the ground where the accident occurred indicated that Bregdon lost control of the truck at a point where the road is about 8 feet in width, where there was a rut about 3 inches deep on the inside of the road. Probably in trying to

avoid the rut, he lost control of the truck and was unable to regain it before it reached the outside bank. From this point the truck had left the road, and when it landed it was at the foot of a steep bank 34 feet from the road, and 84 feet further up the road than it was, having turned completely over once, and slid several feet of the distance. Apparently it had been supported to some extent by the buffalo crate, and it is probably due to this fact that more of the party were not seriously injured. When the accident occurred the truck was traveling at a speed of not more than 10 miles an hour, which would ordinarily be considered as a very safe rate.

During the season of 1919, a truck belonging to one of the Cooke City operators left the road at this same point.

Mr. Bregdon is an experienced driver. He took the others with him without any authority, and no one connected with this office knew they were along until the report of the accident was received. He is still with his wife at the Buffalo Ranch, and probably will be until she is well enough to be moved. Upon his return to duty, he as well as any others who are responsible for this breach of regulations, will be duly reprimanded.

The buffalo bull which was a vicious one, was killed while being released from the crate. Orders were given to save the skull and robe as specimens, but the robe will not be of much value as the hair is not thick at this season of the year. A smaller and better-natured bull will be shipped to Sheridan.

Cordially yours,

Horace M. Albright,
Superintendent.

The Director,
National Park Service,
Department of the Interior,
Washington, D. C.

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

OF THE SUPERINTENDENT

REPORT OF

BUFFALO RANCH ACCIDENT JUNE 11, 1921

Dear Mr. Albright:

The following is my report per your request on the accident at the Buffalo Farm June 11, 1921. This report is based on facts that I have gathered from personal interviews with all the men who had in any way connections with this truck, or with the authorization of its trip to the Buffalo Farm.

To begin with, personal inspection revealed that this Buffalo was entirely too large for this crate. Northern Pacific Agent Thomas Summerville, at Gardiner, Montana, was very reluctant to accept shipment of this bull which was to have gone to Superintendent of Parks Roy Marshall of Sheridan, Wyoming. He refused to be responsible for the condition of the bull or even to the extent of the bull's arriving at its destination. After consulting with Mr. Lindsley, we determined that it would be unwise for us to assume the responsibility of this shipment.

Later consideration of this matter, by the suggestion of Mr. Lindsley we thought it advisable to unload this bull at the Buffalo corral at Mammoth for the show herd. Buffalo Keeper, Lacombe was not at all in favor of this move based on the fact that the bull was an exceedingly vicious animal, he would eventually cause trouble and might have injured men connected with the handling of these animals or tourists visiting the corral.

We then decided to return the bull to the Buffalo Ranch for replacement with the smaller animals.

Master of Transportation, Delmar said he could furnish transportation for this shipment, during the afternoon he came to Mr. Lindsley and asked if he had any objection to Frank Bredgon, an electrician, driving the two ^{Mack} ~~International~~ truck No. ⁶ ~~2~~ to the Buffalo Farm with the bull. Mr. Lindsley refrained from giving his consent, as he believed it was advisable to consult with Mr. Allen, master electrician, in re of sparing Bredgon for the day, As Mr. Allen was engaged in repair work between Mammoth and Morris we were unable to communicate with him.

The International truck with Mr. Bredgon driving, accompanied by ^{and} Mrs. Bredgon, Mr. and Mrs. George McFarland, who is employed as a laborer here, left Mammoth Hot Springs at about 5 P. M. with the bull for the Buffalo Farm.

When Bredgon desired permission to take the bull to the ranch, he did not mention to either Mr. Delmar, Mr. Lindsley or Mr. Lacombe that he had any intention of bring^{ing} the other three mentioned persons with him. It was not known to any of your subordinates that these people were on this truck. Shortly after 6 o'clock Mr. Allen called me and asked what I wanted of him during the afternoon. I told him the circumstances connected with Bredgon's taking the bull out to the ranch. Mr. Allen said he was greatly inconvenienced by Bredgon's absence as it would make it necessary for him to lay off his entire crew, Sunday June 12.

I fully intended to discuss this matter with Mr. Allen later in the evening but unforeseen conditions prevented it. Nothing farther was heard from this truck until 8:40 P. M. when assistant Superintendent

Lindsley was notified that the truck had left the bank of the road leading into the Buffalo Farm.

With Dr. W. E. Crawback, I left Mammoth Hot Springs at 9:35 P. M. in the Doctor's car in response to this emergency call. We arrived at the ranch at 11:35, this being three hours after the accident happened.

According to Doctor Crawback the seriously injured are Mrs. Frank Bredgon and Mrs. George McFarland. Mrs. Bredgon's case being almost critical at this time. Because of the fact that Mrs. Bredgon's injuries had swollen to such an extent the doctor has been unable to determine the actual extent of her injuries. So far as he is able to confidently report he says Mrs. Bredgon sustained three fractured ribs on the left side above the heart, possibly a fractured shoulder blade and it is not at all improbable that she has sustained a puncture in the left lung. In addition to this she is suffering from very painful ^{abrasions} ~~lacerations~~ that cover her entire left side with many on her limbs.

Mrs. McFarland sustained lacerations on the scalp and possibly a slight concussion, while Bredgon, McFarland and Lacombe escaped without injury. In spite of the fact that ^u ~~to~~ ^t stitches were necessary to relieve Mrs. McFarland's injuries combined with a severe shaking up and numerous bruises she returned to Mammoth during the early part of the morning with the doctor.

At day break today, June 12, Lacombe and I made a thorough inspection of the road and its conditions which lead to this disagreeable accident. With a ^e tape measure we found that the truck turned over 84 feet from the point where, apparently, mechanical trouble or some fault in the road caused Bredgon to lose control of his car. The point where we believe the driver of this truck to have lost control, the road measures 8 feet in width, on the inside of which there is a rut approximately three inches deep. The indications are that Bredgon in

attempting to avoid this rut, crowded the bank too closely. The bull tossing in its crate with the truck traveling over what I would call an unsound road, caused him to turn his wheel in such a position that he was unable to regain control. The tracks made by the front wheels of this truck show that Mr. Bredgon stayed with the truck until it turned over.

The accident occurred along a bank of approximately ⁹35 to 40 degree pitch, the truck making one complete revolution and stopping 34 feet from the top of the road. If it had not been for the buffalo crate, in all probability, this accident would have been of a more serious nature. The truck was supported, after turning over, by the crate which fell on its side and slid about 5 feet. After questioning all of the ^{occupants} ~~components~~ their stories confirmed with the point that the truck was not traveling more than 10 miles an hour. I believe this to be a fact for the road was in such poor condition that it would have been impossible to have driven over it much faster with such a heavy truck.

Sitting beside Bredgon at the wheel was Mrs. McFarland and to her right was Mrs. Bredgon, with Lacombe standing on the right running board, McFarland sitting on the tool box on the left running board. Bredgon and McFarland were thrown clear of the truck before it left the embankment. Lacombe foresaw the accident and jumped just before the truck turned, followed by Mrs. Bredgon who saw his move but in her attempt she slipped, according to her statement to the doctor and myself. As far as I am able to comprehend, I believe she was struck by the buffalo crate and jambed against the body of the truck. Mrs. McFarland was unable to make any attempt to get out of the cab, consequently the cab was crushed down upon her pinning her to the steering wheel. While the truck was in an upright position the top of the gas tank fell off, saturating Mrs. McFarland from head to foot with gasoline.

This accident happened within 500 yards of the Buffalo Ranch buildings and adjoining the fence surrounding the hay field. During the season of 1919 the truck operated by Mr. Hancock of Cook Montana, met with a similar accident at this point.

The damage to the truck is slight. It was removed this morning from the scene of the accident with a team by Lacombe and one of his men.

I cannot help but call your attention to the work in this emergency of Emma Christianson, employed as a cook by Lacombe, who, with seemingly thorough knowledge, administered first aid to the injured women and attended to their needs as long as possible. Her interest and willingness is worthy of our highest commendation.

Dr. Crawbuck expressed his feelings very frankly about his inability to have our mechanics attend to a few minor adjustments to his car which was brought hom on many occasions when we were traveling at an excessive rate of speed and under the handicap of having no brakes and with these conditions the doctor took many very extraordinary chances. I regret to have to include in this report the fact that Mr. Bredgon, according to Dr. Crawbuck, is delinquent in two of his payments of our required monthly fee and that he, Dr. Crawbuck claims, was one of the few who would not earnestly cooperate in giving us medical protection.

According to our conversation last night regarding buffalo bulls that are vicious and extremely hard to handle, I instructed Lacombe to kill the bull in question after he and I with lantern, inspected the shoot from which this bull was crated. The animal has taken much of Lacombe's time by his unmanagable disposition and in addition, we have been put to an expense of approximately \$50 by the damage to our fences in the corrals where this animal has been fighting

the herders. He has also been informed by me that he is to communicate with you at the earliest opportunity whenever an instance of this nature arises at the Buffalo Farm again. He was instructed to save the scalp and the head of this bull.

Respectfully submitted,

Wendell M. Bishop

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

OF THE SUPERINTENDENT

July 3, 1921

Superintendent Horace M. Albright,
Yellowstone National Park,
Yellowstone Park, Wyoming.

Dear Mr. Albright:

The following is my monthly report to you on the activity of the Ranger Service of Yellowstone National Park. This report includes the general conditions, changes of the personell, work completed, work in progress, work begun, plans on proposed work, changes in policy, arrests, reprimands, wild animal conditions, accidents, travel conditions and other matters of general interest.

My report is as follows:

I. GENERAL CONDITIONS:

(a) Road and Weather conditions.

Preparations for opening the 1921 tourist season were practically completed with the opening of the month, showing an advance of practically two weeks over that of last year. Roads in all sections of the park around the loop, with the exception of Snake River, Sylvan Pass, Dunraven Pass and Mt. Washburn, were open by June 5. Three or four cars passed over the continental divide on that date.

Dunraven Pass was completed by First Assistant Chief Ranger Harry Trischman and crew on June 13, with Mt. Washburn road open for travel June 24. Sylvan Pass was opened by Foreman D. T. White and his crew June 9. All cars were held at the Sylvan Pass and Lake Ranger Stations until June 16 to permit this road to dry out. The same conditions prevail on the Snake River road between the Thumb Ranger Station and Snake River Ranger Station, the elements having cleared this road of all snow by June 10 with only small washouts holding up traffic

The expense connected with the opening of these roads was held to a minimum figure and from all reports the general conditions of the roads are far superior to any report during the past 5 years. Minor necessary repairs on bridges and repair-

III 6

ing of small washouts were handled under my direction from this office.

The Gallatin County road leading from West Yellowstone through the park over the West Gallatin Range was possibly in the poorest condition of all the approach roads. Bridges across the creeks and rivers were reported unserviceable. Park Ranger C. O. Davis was given instructions to make temporary repairs wherever possible. Reports were made to Gallatin County Highway Commission by Park Rangers Woodring and Davis regarding the condition of this road, following which, a crew of five men was ordered to the district from West Yellowstone by the county officials, but through a misunderstanding they merely inspected the district and then returned to West Yellowstone without making the necessary repairs.

Roads leading to the park through southern Idaho to West Yellowstone were in very poor condition and almost impassable until June 12, heavy rains and high waters being responsible for the traffic delays to the park. Many cars between Henry's Lake and Monida were delayed from three to ten days on account of this road. Nevertheless, 188 more cars entered West Yellowstone entrance during the month of June of this year than entered during the same month in the 1920 season.

Favorable weather conditions permitted us to proceed with our work with no delay.

(b) Travel.

Contrary to our expectations, the month of June closed with our records showing an increase of 2,489 tourists and 916 automobiles over that of the month of June of 1920. But tourists visiting the park with the Yellowstone Park Transportation Company fell below our 1920 record by 581 visitors. The Yellowstone Park Camps Company losing all except 12 visitors of this deficit as near as our figures show. Attached herewith is a monthly travel report of the Chief Ranger in addition to the statistics of automobiles and passengers entering Yellowstone Park, by states, the various makes of automobiles, showing the number of cars entering and a comparative travel statement of the seasons 1920 and 1921.

(c) Labor Conditions.

At no time in the history of this park have men for all classes of work been so plentiful. More than 100 applications in person and 450 written applications for temporary ranger positions have been received. The greater

number applying for work in any capacity regardless of compensation. The ranger service personell is complete for the summer months. But three permanent positions will be allotted to men in the temporary rank to fill vacancies caused by resignations.

II PERSONELL:

The strength of the ranger force at the close of the month consists of the Chief Ranger, James McBride, First Assistant Chief Ranger Harry Trischman, Assistant Chief Ranger Joseph Douglas and acting Assistant Chief Ranger Ewind T. Scoyen and the following Park Rangers:

- | | |
|--|-----------------------|
| 1. Court B. Dewing | 10. James M. Dupuis |
| 2. Peter Lawson | 11. George Winn |
| 3. Thad C. Pound | 12. William N. Purdue |
| 4. Roby Roy Wisdom | 13. Earl S. Bowman |
| 5. Raymond G. Little | 14. Calvin O. Davis |
| 6. Henry Anderson--detailed
trail work. | 15. Hans Larsen |
| 7. Roy T. Frazier | 16. Sam T. Woodring |
| 8. Ford Purdy | 17. Clifford Anderson |
| 9. Albert L. McLaughlin | 18. Wendell M. Bishop |
| | 19. Luther Custer |
| | 20. Edward Burkett |

and the following W. A. E. Park Rangers:

- | | |
|-------------------|-----------------------|
| 21. Emmet Matthew | 22. Hollis N. Matthew |
| | 23. Elmous Mead |

and the following Temporary Park Rangers:

- | | |
|--------------------------|------------------------------|
| 24. William C. Troutman | 42. James S. Baker |
| 25. Russell Sprinkel | 43. Roger D. Baker |
| 26. Leon D. Mink | 44. Frank H. Schramm |
| 27. Wendell S. Keate | 45. John T. Needham |
| 28. Frank J. Parsch | 46. Warren H. Loyster |
| 29. Eugene Robertson | 47. Gordon Cottier |
| 30. Ray D. Teesdale | 48. Earl D. Glynn |
| 31. Frank H. Knight | 49. Belknap C. Hawkes |
| 32. Vernon S. Downs | 50. Chester L. Butler |
| 33. Forest L. Carter | 51. Milton H. Lichtenwallner |
| 34. Edward B. Cogswell | 52. Kenneth W. Kreppene |
| 35. Carroll P. Donohoe | 53. G. Shelby Ferguson |
| 36. Fred C. Finch | 54. Samuel A. Kaplan |
| 37. Cyril C. Moore | 55. Florian J. Uble |
| 38. Edward P. Buckenmyer | 56. Pierce A. Cummings |
| 39. Marguerite Lindsley | 57. Harold E. Pammel |
| 40. Paul R. Wylie | 58. Clarence E. King |
| 41. Robert J. Potter | 59. Donald F. Mattson |
| | 60. Douglas McMurry |

and the following acting Temporary Park Rangers:

61. Robert B. Armstrong
62. U. R. Cramer
63. Clinton S. Ferris

64. Gordon Ridsdale

The following men will be added to the Ranger Force July 1, 1921:

65. William H. Harrison

66. Eugene Cohn

Mr. Cohn will act as a Temporary Park Ranger, while Mr. Harrison holds a W. A. E. appointment.

Resignations were received and accepted from the following Park Rangers; Ranger Albert T. Bicknell, effective June 18, 1921; James Russell, effective June 16, 1921; Lee Cottrell, effective June 30, 1921; according to our plans for the winter of 1921-22, Mr. Bicknell and Mr. Cottrell will be reappointed during the month of September.

The following resignations were received and accepted from men holding Temporary Ranger appointments:

Louis Druskin
Frederick N. Price
F. Hobson Roe
Alfred H. Clarke
Elmer P. Little

Jack Stratton
Edgar E. Randolph
J. Paul Campbell
Henry W. Capen
Philip R. Hough
Robert Wilkinson.

The following is the detailed assignment of all Park Rangers, permanent, temporary, and acting, with the dates the temporary Park Rangers and acting Park Rangers were taken on the National Park Service Payroll.

Chief Ranger James McBride is in charge of the entire ranger force.

Assistant Chief Ranger Harry Trischman, in charge of the Northern District, trail crews, and subject to special assignment by the Superintendent and Chief Ranger.

Assistant Chief Ranger Joseph O. Douglas, in charge of the Southern District, with headquarters at Lake Ranger Station.

Assistant Chief Ranger Ewind T. Scoyen will be in charge of the Western District and in charge of station at Upper Geyser Basin.

Ranger Wendell M. Bishop, in charge of the Chief Ranger's Office stationed at Headquarters. He will also be in charge of Mammoth Ranger Station and motorcycle force.

Mammoth Hot Springs Ranger Station:

In charge of station and Chief Ranger's Office, Ranger
Wendell M. Rishop

Hans Larsen
Don Mattson 6/20
Pierce A. Cummings 6/15
Edw. B. Cogswell 6/15
Hugh D. Cramer 6/15

Earl D. Glynn 6/14
Mary A. Rolfe 6/13
Marguerite Lindsley 6/14
Gordon Cottier 6/15
Peter Lawson

Gardiner Ranger Station:

In charge of station, Park Ranger Thad C. Pound.
Albert L. McLaughlin Court B. Dewing

Norris Ranger Station:

In charge of station, Park Ranger Roy T. Frazier.
Clinton S. Ferris 6/23

Madison Junction Ranger Station:

In charge of station, Ranger Belknap C. Hawkes 6/15

Fountain Ranger Station:

In charge of station, Ranger William C. Troutman 6/15
Chester L. Butler 6/10 Vernon S. Downs 6/15

Upper Basin Ranger Station:

In charge of station, Assistant Chief Ranger Erind
T. Seoyen Florian Ubel 6/15
Frank J. Parsch 6/15 Eugene V. Robertson 6/15
Ray S. Teesdale 6/15 Fred C. Finch 6/15⁶
Gordon Ridsdale 6/15

Thumb Ranger Station:

In charge of station, Park Ranger Luther Custer.
Clarence E. King 6/15

Snake River Ranger Station:

In charge of station, Park Ranger William N. Purdue.
Earl S. Bowman.

Riverside Ranger Station:

In charge of station, Park Ranger Ford Purdy.
Samuel A. Kaplan 6/15

Bechler River Ranger Station:

In charge of station, Park Ranger Raymond G. Little.
Robert J. Potter 6/15

West Yellowstone Ranger Station:

In charge of station, Park Ranger Sam Hurless 6/8
Cyril C. Moore 6/15 G. Shelby Ferguson 6/15

Gallatin Ranger Station:

In charge of station, Park Ranger Calvin O. Davis
Kenneth W. Krippene 6/15

Lake Ranger Station:

In charge of Station, Park ranger Edward Burkett.
Clifford Anderson Elmous M. Mead 6/15
Wendell S. Keate 6/15 E. P. Buckenmyer 6/15
Robert Armstrong 6/15

Upper Yellowstone Ranger Station:

In charge of station, Ranger Milton H. Lichtenwallner 6/15

Sylvan Pass Ranger Station:

In charge of station, Park Ranger Roby Roy Wisdom.
James S. Baker 6/20 Roger D. Baker 6/20
Douglas McMurray 6/15

Canyon Ranger Station:

In charge of station, Park Ranger Sam. T. Woodring.
Paul R. Wylie 6/15 Harold E. Pammel 6/15
Carrol P. Donohoe 6/15 Warren H. Loyster 6/15

Tower Falls Ranger Station:

In charge of station, Park Ranger James N. Dupuis.
Frank H. Knight 6/15 Frank H. Schramm 6/15

Soda Butte Ranger Station:

In charge of station, Park Ranger George Winn.
F. L. Carter 6/15

Motorcycle Squad:

In charge of squad, Park Ranger Wendell M. Bishop
Emmet S. Matthew 6/15 Russell Sprinkel 6/12
Hollis N. Matthew 6/15 Leon D. Mink 6/15
John T. Needham 6/15

(a) Leaves.

Leaves of absence were granted to the following men: Albert T. Bicknell, fourteen and one-half days, June 2 to June 18 noon, following which his resignation took effect.

James J. Russell, six days, June 9 to June 16, following which his resignation took effect.

Park Ranger Clifford Anderson, five days, June 3 to June 8.

Park Ranger Calvin O. Davis, one day, June 4 to June 6 noon.

The following men have been carried on the payroll pending disposition of their cases as a result of injuries received:

Temporary Park Ranger Edward P. Buckenmyer, Lake Ranger Station, injured June 19 when his saddle horse rolled on him. He has been confined to his quarters since that time.

Temporary Park Ranger Hollis N. Matthew was injured June 22 while on motor patrol between the Sylvan Pass and Lake Ranger Stations. He has been confined to his quarters since that time.

Temporary Park Ranger Robert J. Potter, Bechler River Ranger Station, was injured while clearing trails June 30. The extent of his injuries are not yet known. He was taken to the hospital at Ashton, Idaho.

(b) Vacancies.

Through transfers to various other departments of the National Park Service, the following vacancies on our force have occurred:

Park Ranger Henry Anderson, Soda Butte Ranger Station, was transferred June 8 to the trail division where he is to have charge of all trail and cabin work for the season. He was detailed on that date to clean all public automobile camps along the main loop road and to wreck condemned government and former concessioners' buildings.

Park Ranger Lee Cottrell, Bechler River Ranger Station, resigned from the ranger force June 2, by your request, to return to his former capacity with the engineering department.

Park Ranger Albert T. Bicknell, Lake Ranger Station, resigned June 18 to return to the Yellowstone Park Boat Company

where he has had charge of the operation of boats on the Yellowstone Lake for the past five years.

Vacancies caused by the above resignations will be filled by the required number of temporary rangers who consist of the following who are endeavoring to obtain permanent ranger appointments:

Forest L. Carter, Soda Butte Ranger Station,
John T. Needham, Motorcycle squad,
Chester L. Butler, Fountain Ranger Station,
Samuel A. Kaplan, Riverside Ranger Station,
Clarence E. King, Thumb Ranger Station.

III WORK COMPLETED:

(a) Physical improvements.

Melting snow on mountain highways made it necessary for us to detail rangers to patrol these roads with instructions to clean out culverts and turn all running water from the road. Sylvan Pass, Canyon and Tower Falls Districts required attention until June 9.

First Assistant Chief Ranger Harry Trischman, with a crew of 9 men, was detailed to snow work in Dunraven Pass to open this road for regular tourist travel by June 20. This work was completed on June 13 in record breaking time. On the following day, Trischman with his crew moved their camp to Mt. Washburn where work began clearing mountainous highways of snow, June 14. This mountain road was cleared of snow June 24 and the road base was then placed in first class condition.

Park Ranger Henry Anderson with a crew of three men made a complete trip around the park between June 8 and June 29 cleaning public auto camps. Garbage piles in these camps were removed, toilets repaired and fallen timber cut into fire wood.

Park Rangers Hans Larsen and Peter Lawson completed repairs on the Black Tail Deer Creek horse pasture fence. This fence has been in need of repairs for several years but is now strong enough to hold a small herd of horses held in this range for emergency purposes.

Operations at the Buffalo Ranch include irrigation of hay fields, repairing of corral fences and minor improvements to branch buildings proper. Three hundred yards of fence along the Lamar River had to be replaced on account of a washout taking approximately forty-five thousand square feet of meadow land.

Ira D. Flening, keeper of the Slough Creek horse ranch spent the month preparing to harvest the hay crop and in general improve operations at the ranch. He was assisted until June 4 by Park Ranger Clifford Anderson.

(b) Service to the Public.

Surpassing all records the 1921 tourist season formally opened to the public June 20 with 715 tourists entering the park, while up to that time 2,810 visitors were reported. On the opening day all stations were garrisoned, roads were in first class condition and concessioners were ready to accommodate visitors in the usual manner.

Instructions were issued to Park Ranger Thad C. Pound on June 6 to charge all tourists the required entrance fee to enter the park.

West Yellowstone opened its gates June 8 but poor road conditions were responsible for very light travel until June 11.

Park Ranger Roby R. Wisdom opened the Sylvan Pass entrance station to travel June 16 and to date his records show that he has already entered 561 more visitors than during the month of June 1920 when all records were broken.

Washouts in the road at Lewis Falls held traffic off the Snake River--Thumb road until June 18 when the gates were thrown open to the public. The south entrance has entered 19 cars and 61 people more than was entered during the month of June 1920.

You will not on my attached travel report that 3,070 more visitors have entered the park by their own transportation than entered during the month of June of the 1920 season. The opening of Sylvan Pass rail travel showed an increase of 166, while the north or Gardiner entrance, according to our records, shows a loss of 522 visitors and the West Yellowstone entrance a loss of 225 visitors. Of the 3,051 rail visitors to the park utilizing the accommodations of the Yellowstone Park Hotel Company and Yellowstone Park Camps Company, our records show that the hotels registered 701 more visitors than the Yellowstone Park Camps Company.

Telegrams, messages and articles lost and found were handled for the following visitors by the ranger service during the month:

Telegram for C. E. VanMeter contained a death message received June 21. Party had checked out the West entrance on June 20.

Telegram for Dr. A. F. Myer by telephone from West

Yellowstone, was received June 21 and delivered to Dr. Myer at Mammoth Hot Springs.

Telegram to Mr. George Miles, employed by the engineering department at the Lake sprinkling camp, contained message of the death of his father. It was received June 22.

(c) Lost.

Mr. S. L. Thompson of Colorado Springs, Colorado, reported to the Chief Rangers Office June 24 that he had lost a coat near Tower Falls containing \$10.00 in cash, \$40.00 in travelers checks and his automobile permit. This coat was recovered for Mr. Thompson June 25.

Mrs. E. A. Miller of Portland, Oregon, reported the loss of an Elgin Watch in the Mammoth auto camp. Attempts to locate this for her were in vain.

Mr. Z. W. Carter of Chicago, Illinois reported the loss of a coat in Dunraven Pass on June 24, containing \$68.00 in money and other valuable papers. The coat was recovered for Mr. Carter June 25.

(d) Found.

Mr. A. E. Lidderdale of Junction City, Ohio, reported to the Chief Rangers Office that he had found a violin June 24 in the road between Tower Falls and Mammoth Hot Springs. This violin was claimed June 25 by Frank Kodesh, who said the violin was the only remembrance he had of his mother.

Mr. Samuel Samson of Huntington, West Virginia, found a small purse containing \$10.82 on the Mammoth Hot Springs Formation and turned said purse and contents over to the Chief Rangers Office with instructions to donate the money to the Salvation Army unless it was claimed. It was claimed the following day by Mrs. William Quesse of Chicago, Illinois and mailed to her on June 30.

(e) Stolen.

Dr. W. E. Boyden of Pendleton, Oregon, reported to the Chief Rangers Office that during the evening of June 26 a party of people from California stole a kodak from his car while it was parked on the Hot Springs Formation. Grounds for this belief would not warrant extensive search for the kodak.

Assistant Store keeper Randolph, at Madison Junction, reported to the Chief Rangers Office June 19 that a gold watch was stolen from him while performing his duties about the premises and that he had reason to believe that one of the government truck drivers had stolen this watch. Efforts were made by

7 men @ 4⁰⁰

28.00

2 teams @ 2²¹

4.41

1.00 @ 1¹⁰

1.10

33.51

30.30

\$ 1005.30

this department to recover it for him but without success.

Mr. George Thelan, of Bozeman, Montana, reported to Assistant Chief Ranger Joseph Douglas that two automobile robes were stolen from his car at the Upper Geyser Basin and that he suspected a California car of stealing the robes. He was able to give us the number of these cars which resulted in their being searched by Park Rangers Bishop and Davis who reported to Mr. Thelan that he was mistaken in suspecting these cars of being connected with the theft. ✓

In addition to the above services rendered to the public, many other favors were extended to tourists; such as locating numerous parties about the park and attending to their wants. ✓

An added feature to the publicity given the park was added this month when Mr. A. L. Collins of Spokane Washington, opened a newspaper office at Headquarters for the publication of a small paper to be sold to the tourists and known as the "Tourist Tattler". Rangers have been instructed to assist the editors of this publication in every way possible. ✓

VI IV PLANS ON PROPOSED WORK:

Plans for the development and improvement of the Ranger Service for the 1922 fiscal year are progressing rapidly. Contracts have been drawn up, plans approved and details arranged for the following:

(a) Buffalo Ranch Drift Fence.

A contract has been made between Mr. Oscar Roseborough of Gardiner, Montana, and the National Park Service represented by Chief Ranger James McBride and buffalo keeper, Burton C. Lacombe, for the construction of a drift fence at the buffalo farm extending from the rim on Opal Creek to the rim on Mt. Morris for a consideration of \$1,000.

The specifications of this fence, are: 27 feet from the ground to the top rail with 25 foot panels with 12 inch overlap of the ties. At the connection of the worm there must be no less than a 5 foot angle with the construction of a 3 foot butt plate under the lower rail at each worm. And further, that all rails must be not less than 6 inches in diameter at the small stem and other minor details have been agreed to by all parties concerned.

(b) Crevise Ranger Station.

Through a contract drawn up between Mr. Thomas H. Lewis of Gardiner, Montana, and Chief Ranger James McBride representing the National Park Service, an agreement was reached to build a new

Ruple
Hein Black
Howard
Hutcheon
Bert Francis
Donnelly?
5 horses
June 12 14

7 men

ranger station on Crevice Mountain for a consideration of \$350. Mr. Lewis has agreed to erect this structure according to the following designs and dimensions:

A three room design 16' x 32' is to be divided by a log partition leaving one room 15' x 16' and the other 16' x 16' (inside measurements) with an adjoining building 16' x 16' to be used as a kitchen which is to be connected with the main building on the north side, the east and west walls of which are to be 8 feet from each end of the main building.

This building will be constructed with peeled logs 8 feet above the floor and Mr. Lewis agrees to lay the floor and ceiling in the three rooms from material salvaged in the wreckage of the old station. He also agrees to wreck the present Crevice Ranger Station.

The kitchen of this station will have one double window and two doors and the main building will have six windows and two doors.

Arrangements are being made with Mr. Earnest Shaw, Supervisor of the Absaroka National Forests, for the cutting of the necessary logs and the water lease for this station.

An agreement was made between Mr. Warren Hutchings and Chief Ranger James McBride, representing the National Park Service, to construct a new cabin and barn on Slough Creek for a cash consideration of \$500. These buildings are to be used in what will be known as the "Upper Slough Creek Hay Ranch". It is approximately four miles from the present hay ranch. The cabin is to have an inside measurement of 16' x 30', divided into two rooms. The walls are to be 8 feet high. Both rooms are to be constructed with a board floor and ceiling and their measurements, inside, are to be 20' x 16' and 10' x 16'. A 30" x 6' door will lead from one room to the other.

The cabin and barn is to be constructed with peeled logs, the latter to be 18' wide and 40' long, the roof being supported by cross logs not less than 12 inches at the small end with five bridge logs making a 45 degree pitch extending from one end to the other. Both the barn and house will be chinked and dogged and covered with rubberoid. The National Park Service is to furnish all material and transport this material from the mail box on the Cooke City road to the site of these new buildings.

(c) Buffalo Ranch Haying.

Through contracts entered and agreed upon by Mr. Oscar Roseborough, of Gardiner, Montana, and Chief Ranger James McBride, of the National Park Service, a contract was let to the party of the second part to harvest the hay crop across the Lamar River

south of the Yellowstone Park Buffalo Ranch for a consideration of \$4.88 per ton. Mr. Roseborough agrees to cut and stack this hay under the personal supervision of Mr. McBride and his personal representative Burton C. Lacombe.

It has been agreed that all hay stacks are to measure 20' x 24' and 25' high and between 36 and 42 feet, or more, over-top measurement and that these measurement will be made thirty days after the capping of the hay stacks. It is agreed to follow Montana Laws referring to hay tonage which reads "422 cu. ft. 30 days after harvest equals 1 ton."

(d) Gardiner Hay Meadows.

Plans are being made for the harvesting of hay on the Gardiner Hay Field and stacking this hay in the corral near the meadow. It was considered advisable to award this contract to Charles R. Stoll of Gardiner, Montana, who personally agreed verbally to cut and stack this hay under my direction for a consideration of \$5.00 a ton.

(e) Trail Work.

Park Ranger Henry Anderson formerly stationed at Soda Butte has been assigned as forman of all pack and trail work for the summer. Mr. Anderson will construct new grades on trails in the southern and eastern districts of the park and will repair all cabins in that district. He will leave Headquarters with a small crew within a few days using his own pack train and pack equipment.

V. POLICIES;

Possibly the most noticeable change in the policy of this department has been in the Motorcycle Patrol Service. The work of these men during the month has been exceptional. They have performed duties such as taking into custody wanted cars with exceptional speed and have handled each case in a very diplomatic manner. Their orders received at the Chief Rangers Office vary to such an extent that it is absolutely impossible for any person other than the parties at the Chief Rangers Office to keep a check of any kind upon them. This method of patrol has already proven a decided success and it has been a big factor in the controlling of traffic in the park during the month.

(a) Guide Service.

Rangers assigned to guide duty at Mammoth Hot Springs and Upper Geyser Basin for the first time in the history of the Yellowstone Park have so far been the feature of our visitors' tour. They have received more compliments in the short time that they have been taking parties over the formations than were received during the

entire year of 1920 covering the entire ranger force. The men assigned to these duties are familiar with every detail of their assigned formation and have a fair knowledge of all park features.

The satisfaction of rendering this service to the general public is felt by these guides in knowing that they are rendering a service gratis to people who in former years were forced to pay for all courtesies and to see the formations which they had traveled from afar to see. In spite of the fact that the guides, on starting out with their parties, announce that the trip is on Uncle Sam, they report that they are refusing many tips daily.

(b) Information Office.

More visitors have received information through our Information Office, and more selling documents have been sold this year than has ever been the case. Rangers are assigned to duty in this office from 7:30 A. M. to 10 P. M. and they are now arranging road maps and other matters of general interest in this office for the tourist public. By the middle of July we are expecting to have decorations complete and information data available for any desire of the tourist.

(c) Circulars:

Circular No. 7, reading, "No one will land on Molly Island in Yellowstone Lake up to and including July 25, 1921", was issued upon the suggestion of the Park Naturalist, N. P. Skinner, to protect the young pelicans on that island.

Official banners authorized from the office of the Superintendent were issued to the following which permits cars flying this banner to travel roads in the reverse direction with the exception of Tower Falls, Canyon and West Thumb--Old Faithful road, but does not authorize the bearers of these banners to exceed the speed limits or violate other park regulations:

The Superintendent's Official Car

A. W. Burney, Engineer

H. W. Child)

W. M. Nichols) of Yellowstone Park Trans-

F. E. Kammermeyer) portation Co.

T. E. Keefe) of the Yellowstone

Medical Officer) Park Hotel Co.

H. H. Hays, of Yellowstone Park Camps Co.

J. E. Haynes

C. A. Hamilton

M. P. Skinner, Park Naturalist

Doctor Crawbuck

And others as necessity arises.

VI. OTHER MATTERS OF GENERAL INTEREST;

(a) Wild Animals.

Buffalo Tame Herd.

Nineteen head of bulls representing the finest buffalo specimens of Yellowstone Park were brought to Mammoth June 19 for the buffalo corral for show purposes. Many tourists visit the corral daily to see this herd but according to Park Ranger Peter Lawson, less than half the number of visitors who saw this herd in the month of June last year have been recorded at the corral.

Arrangements were made to ship a three year old bull from Gardiner, Montana, to Superintendent of Park, Roy Marshall of Sheridan, Wyoming, on June 11. The bull was crated at the buffalo farm and brought to the station by Harry Lloyd of Gardiner, Montana. On its arrival it was inspected by Ranger Wendell M. Bishop by orders of Assistant Superintendent Lindsley. Ranger Bishop condemned the crate and ordered the bull to be taken back to the buffalo farm.

This bull was a dangerous animal and had done considerable damage at the buffalo farm to fences and was jeopardizing the lives of the men handling the herd. It was necessary to kill this animal.

On June ²¹ another buffalo bull was brought to Gardiner, Montana, to be shipped to Mr. Marshall at Sheridan, Wyoming, for their city park. This animal was two years old and was in excellent condition and bore every indication of being a remarkable specimen.

The herd has been grazing on Mt. Morris through the entire month and have been reported to be high in flesh. 63 calves have been added to the herd, 11 of which came during the month of June.

Bears.

The bears at Canyon, Lake and Upper Geyser Basin garbage piles are more numerous this month than is usually the case in June. The bears are in high flesh and apparently are on the increase. Rangers at the Lake Station reported see one Grizzly and three cubs all of which were her own. As many as nineteen have been seen at the Canyon garbage pile during one evening.

Plans are being made to capture a yearling male black bear for the State Agricultural College of Texas. Lake Rangers report such an animal feeding on the garbage piles along the river and we expect make the capture for the Texas institution.

Antelope.

With the Antelope back on the summer range they are very seldom seen by either rangers or tourists. But all reports favorably show that they are not increasing as rapidly as we would desire. ✓

Deer.

Many fawns have been reported and are quite often seen around all of the loop stations and especially in the Tower Falls and Canyon Districts. ✓

Elk

34 head of Elk could be seen at Mammoth until about the 20th of June when heavy traffic seemed to frighten them from the district. I am of the opinion that our calf crop for the season will be a fairly large one. Favorable weather conditions have lead me to believe that the calf crop loss from scours, etc., will be far below that of previous years. ✓

Mountain Sheep.

Tourists traveling over Mt. Washburn during the early part of the season enjoyed the sight of a herd of 3 Mountain Sheep, three of which were ewes with lambs. Other than this report I do not know of any other tourists seeing any of these animals. ✓

Grazing.

Grazing over the entire park is excellent. Horses of the Department of the Interior are being held on the Black-tail with the exception of those used by the Ranger Service and Engineering Department were brought to headquarters June 11. ✓

The Yellowstone Park Transportation Company brought in a herd of 44 head of horses to be used at the Old Faithful Inn and Grand Canyon Hotel, on June 12. The horses at Old Faithful are being grazed on Iron Creek and the horses at Grand Canyon are being held between Grand Canyon and Cascade Creek. ✓

The Yellowstone Park Camps Company brought in a herd of 71 head of horses on June 7 and distributed them at Mammoth, Camp Roosevelt and a small herd at the Upper Geyser Basin. The horses at Mammoth Hot Springs are being ranged at the pasture adjoining the Tower Falls road. The horses at Camp Roosevelt have been ordered to be held either in the Yellowstone River or on the Bluffs above Camp Roosevelt. The man in charge of this herd has not given us his cooperation in keeping the herd out ✓

of the Yancey Hay Meadows. Instructions have been issued to Rangers in the District to impound these animals unless they are kept off the meadows.

Permits were issued to the following concerns to graze milk cows within the boundaries of the park for the purposes of supplying the hotels and camps with milk:

To Holstad & Tobias of Chadbourn, Montana, permit to graze 35 head of cattle on the Main Gardiner, was issued on June 15. These men have been given thorough instructions regarding milk cows along the park roads or within sight of the touring public.

To Boylan & White, of Bozeman, Montana, a permit was issued June 17 to graze 47 cows and one bull in the vicinity of Queen's Laundry on Sentinel Creek and the Lower Geyser Basin. They are making arrangements and have been given proper authorization, to build a small temporary milk camp on the old Mountain Freight Road between Excelsior Geyser Basin and the Mountain Ranger Station.

A permit to Keyes & Stafford of Gardiner, Montana, to graze 61 cows and 6 calves in the Canyon District near Cascade Creek. These cows entered the park on June 17 and by the permits issued from this office they were allowed to enter the park on Reese Creek and were driven through the park over the trails.

Fishes

Fishing in all sections of the park was below normal during the month on account of high water. Fish Culturists working at Fish Lake on the propagation of fish met with very little success this season having started their work in gathering the spawn too late in the season.

Park Naturalist, M. P. Skinner, suggested and allowed Prof. Richard Anthony Matkowskl of the University of Idaho to seine fish from the Lamar River, Tower Creek and Slough Creek in field work connected with the Roosevelt Wild Life Forest Experiment Station. This work is being carried on in connection with the proper foods for the various kinds of fish found in the park. Fishing has been closed in Fish Lake during the entire month by your order issued during the month of May. It is suggested by Park Ranger George Winn that this order be revoked at this time as it is no longer necessary to have such a regulation to protect fishes in these waters.

The U. S. Bureau of Fisheries opened their hatchery on Yellowstone Lake during the first part of the month.

Frys were received from the Bozeman and Emmigrant hatcheries and planted in the following streams on June 30:

5,000 Eastern Brook in Lava Creek ✓
5,000 Eastern Brook in Glenn Creek ✓
5,800 Eastern Brook in Elk Creek. ✓

A shipment of one million Greyling will be received at West Yellowstone, Montana, Saturday morning, July 2, and will be transported to the Canyon Ranger Station where a pack train will carry them to Grebe Lake for planting.

Natural Phenomena.

The Terraces at Mammoth Hot Springs especially the well known Jupiter Terrace are showing a decided increase in activity. Among the larger terraces showing the increase are: The Angel, and smaller terraces surrounding it, White Elephant, Cleopatra, Mound, Narrow Guage, Pulpit and many of the smaller terraces.

Reports from the Norris Geyser Basin show a greater activity among the smaller geysers and hot springs than has heretofore been reported.

Reports from the Lower Geyser Basin show irregularities in all geysers of the basin.

Recent reports from the Upper Geyser Basin show geysers playing in the following intervals:

Old Faithful at 43 to 75 minutes.
Daisy, regular at 70 to 80 minutes.
Riverside very regular at 7 hours.
Grand at intervals from 8 to 10 hours.
Castle very active, this geyser played four times between the 16th and 30th, three eruptions of which came in four days.
Giant last eruption of the month on June 19.
Comet, the only eruption of the month that has been recorded was on the 25th.
Mortar, observed in eruption but once.
Grotto, one eruption each day.
Lion observed in eruption from one to ten times each day.

One of the greatest disappointments of the season is the Beehive, as there has been no eruption seen in this geyser this season. We have been unable to account for the inactivity of this famous cone-type geyser.

Arrests.

Two parties were tried before the United States Commissioner during the month of June for violations of rules and regulations of this park. Both of these parties pleaded guilty to the charges and were allowed to proceed after receiving the judgement of the court. They were as follows:

Park Ranger Eugene B. Robertson, in charge of the public auto camp at the Upper Geyser Basin, requested the arrest of the party in Iowa car No. 113854 for failing to extinguish their camp fire in the public auto camp on June 25.

This number was dispatched to all rangers in the park and on the morning of June 26, motorcycle ranger Emmet S. Matthew took the party into custody who proved to be Mr. C. B. Wright in a party of three from New London, Iowa.

Temporary Park Ranger Robertson filed complaint against Mr. Wright on June 27 and the trial was held before the United States Commissioner. They were fined \$10.00 and costs which was \$5.50.

Mr. C. Bakke of Los Angeles, California, was arrested by Temporary Park Ranger Emmet S. Matthew on June 30. He alleged Mr. Bakke for snagging fish in the Yellowstone River. I ordered the party brought to headquarters for trial before the United States Commissioner July 1.

Reprimands.

After practically three years of investigation, a case was finally drawn up against Mr. George Thelan of Bozeman, Montana, who was thought to be conducting a livery business in the park during the season. He entered the park June 6 with a party of seven. His car contained school teachers from the city of Bozeman who lived in all sections of the United States. The record was made of this entry and a careful check of all cars reentering the park and it was found that on June 11, Mr. Thelan again entered the park with an entirely new party. As he checked out the north entrance on June 14, Park Ranger Thad C. Pound was given instructions to charge Mr. Thelan \$7.50 for a permit for this party and to give Mr. Thelan instructions to the effect that he would be taken into custody if he entered the park again unless with relatives or very intimate friends. He entered the park again, June 20, and was immediately taken into custody. Due to peculiarities of the case the matter of the prosecution was referred to you for consideration, after which it was determined to allow Mr. Thelan to bring camping parties through the park from Bozeman, Montana, on the condition that on each entry he purchase a ticket in the name of one of the members of his party.

This decision was based on the fact that the parties Mr.

Thelan brings through this park would , if it were not for his accommodation, possibly never see the park. To encourage travel to the park it was decided to allow Mr. Thelan to bring the parties he desired into the park before and after the season opened and closed. ✓

Temporary Park Ranger Florian J. Ubel, Upper Geyser Basin, reported to the Chief Rangers Office on June 18 that a party in a light Ford Truck were attempting to sell Indian robes in the Public Auto Camps around the loop. A thorough investigation was conducted and it was found impossible to prove the case against the party on a charge of operating a business in Yellowstone Park without the required permission from the Superintendent. They were allowed to proceed on their way after having been given to understand that no person or persons could operate a business of any kind within the boundaries of Yellowstone National Park, without the consent of the Secretary of the Interior sanctioned with the recommendation of the Superintendent. ✓

A party of four men from Livingston, Montana, headed by Don Miles, was held up at the Norris Ranger Station by Park Ranger Roy T. Frazier after a complaint had been filed against the party which led us to the suspicion that the driver of this car might be in a toxicated condition. It was found to be a fact to some extent, but it was considered advisable to allow the party to proceed after the driver had been given an opportunity to sober. ✓

Temporary Park Ranger Gordon Cottier, Mammoth Ranger Station in charge of public auto camp, reported to the Chief Rangers Office that a Colorado Car, License No. 8953 had left their camp fire burning after breaking camp in the morning. The number of the car was dispatched over the entire park, and later in the day, Motorcycle Ranger Emmet S. Matthew located the car and reported that it was driven by Mr. E. E. Davis of Denver, Colorado, who admitted that he had neglected to extinguish his fire. The conditions of the case was given no small amount of attention after which it was found advisable not to file a complaint against Mr. Davis who was allowed to continue his tour after receiving a severe reprimand from the Chief Rangers Office. ✓

Chief Engineer A. W. Burney instructed Yellowstone Park Transportation truck driver, No. 340, to report at the Chief Rangers Office for refusing to allow private automobiles to pass him while enroute. The driver reported to the Chief Rangers Office June 28 and was given a severe reprimand and it has been found, later, that the driver of this truck has not adhered to the advice given him thereby making it necessary to request his discharge. This will be taken up within the next few days. ✓

Telephone Service.

Promptness in locating parties was held up from noon June 25 until the evening of June 27 on account of the telephone lines on the east side of the park. It was impossible during this period of time to get a connection of any kind with any of the stations in the Western District.

Horses.

Reports are received at the Chief Rangers Office that two National Park Service horses were seen in the Lower Yellowstone Valley. After getting into communication with Mr. Charles Rigler, a rancher of the lower country, he agreed to recover these horses for me for a consideration of \$10.00. This was accomplished June 29 when the horses were returned to me at Headquarters.

Transfers.

It was found necessary after tolerating many discouraging and petty acts by Temporary Park Ranger Clarence E. King to transfer him to the Thumb Ranger Station for duty at that place. Through a misunderstanding on the part of Mr. King it seems he formed the opinion that he was working under your personal supervision or upon orders from my office. Mr. King has improved materially with this change, having replaced Temporary Park Ranger Robert B. Armstrong who was ordered to the Lake Ranger Station with traffic assignment.

Temporary Park Ranger Balknap C. Hawkes received a reprimand for becoming officious in the performance of his duties. This was accounted for by his ambitiousness and his conscientiousness in the performance of his duty. We have had many favorable reports about him since he has received this reprimand.

Accidents.

While trucking a buffalo bull from Gardiner, Montana, to the buffalo ranch on the Lamar River, Saturday June 11. Electrician Frank Bregdon lost control of the truck which turned over the bank and rolled 34 feet to its bottom. The accident occurred within 500 yards of the buffalo ranch. In the fall of the truck Mrs. Frank Bregdon and Mrs. George McFarland, occupants of the truck, suffered injuries that required immediate medical attention, Mrs. Bregdon's case being of a serious nature. She suffered three broken ribs, many contusions over the entire body.

Mrs. McFarland suffered from a laceration of the scalp and numerous skin abrasions.

Temporary Ranger Edward P. Buckenmyer was severely injured on June 19 when his saddle horse reared and fell back on him. He was unable to free himself from the saddle and was caught under the horse, the horn of the saddle piercing his abdomen. The accident occurred in front of the Lake Ranger Station, consequently immediate attention was given him by the Lake Hotel Nurse and the rangers at the station. ✓

Doctor Crawbuck, of the National Park Service, was rushed to the scene and four stitches were required to close the wound. Mr. Buckenmyer was never removed from the Lake Ranger Station and is recovering rapidly without showing any ill effects from the injury. ✓

Compensation has been requested owing to the fact that he is not entitled to sick or annual leave. ✓

While on Motorcycle Patrol between the Sylvan Pass and Lake Ranger Stations, Motorcycle Ranger Hollis N. Matthew was thrown from his machine caused by sliding into a rut, June 22. He suffered a painful wrench of the right knee with the ligaments of the right calf being torn and the flesh bruised as the machine passed over it. He was brought to his quarters at Mammoth and has been confined to his bed since the accident under the care of Doctor Crawbuck, National Park Service Physician. He is entitled to 12 day's leave, six of which are under the heading of sick leave. The machine was not damaged in the accident. ✓

Temporary Park Ranger Robert B. Armstrong, Thumb Ranger Station, reported that Mr. W. B. Learnard of Arkansas City, Kansas, stepped into a fishing cone on the 22nd day of June and was rushed by this ranger to the Lake Station for medical attention. He reported that Dr. Brooks attended the injured man and diagnosed the case as a first degree burn. ✓

Developments of the case on June 26 led to the accident's turning to a more serious nature when Dr. W. E. Crawbuck was called into the case to attend to the suffering of the injured man. Dr. Crawbuck's personal report to me is to the effect that the burns extend from his buttocks to his feet and in that area there are burns of first and second degree intentions. The man has been confined to the Lake Camp since the time of the accident and was suffering painfully until the time Dr. Crawbuck was called into the case. Mr. Learnard claimed that Dr. Brooks did not any more than glance at his injuries and told him that he was not injured half as bad as he thought he was. It is my belief that in emergencies of this kind our rangers should be instructed to call the National Park Service Physician into the case if only for a more accurate report of its nature. ✓

Camp tender LeMaster at the Grand Canyon Station, while hauling rubbish to the garbage dump, backed the cart and horse over the rim of the refuse pile. The horse and cart rolled 30 feet to the bottom of the dump. Mr. LeMaster received numerous minor injuries and wrecked the dump cart and harness; the horse was not injured other than a few cuts. ✓

Temporary Park Ranger Robert J. Potter of the Bechler Rover Ranger Station suffered a severe laceration on the right knee while mounting his horse on trail work in Mountain Ash Creek District. It was necessary to remove him to the hospital at Ashton, Idaho, where will be confined approximately 12 days. One of the blood vessels of the leg was severed and seven stitches were required to close the wound. Compensation for the injured man will be applied for. ✓

Meals.

Rangers at the Upper Geyser Basin and Canyon Ranger Stations are boarding with maintenance crews established at these points and are paying for their meals at the rate of \$1.00 per day. They are assuming personal responsibility for fancy side dishes. The men at the Upper Geyser Basin began eating at their mess on the evening of the 18th of June, while the Canyon rangers did not begin at their mess until June 23. All other rangers in the park are paying for their meals by personal agreements. The men stationed at the Lake Ranger Station expect to take advantage of the Sprinkler Crew mess at this point about August 1. At this time they have enough rations on hand to carry them through the month of July. ✓

Respectfully submitted,

James McBride
Chief Ranger.

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